

COURSE OF STUDY IN GEOGRAPHY

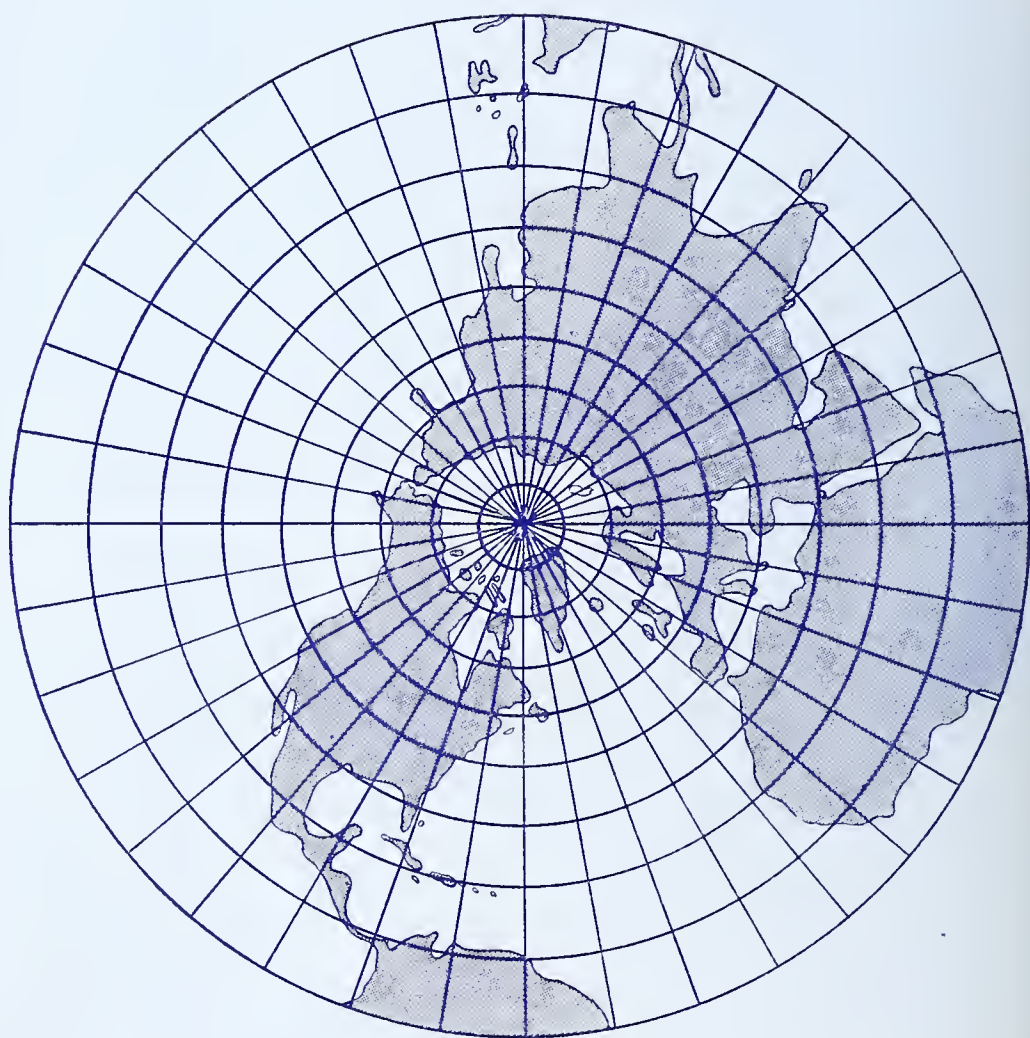
FOR
SECONDARY SCHOOLS

A PROGRESS REPORT

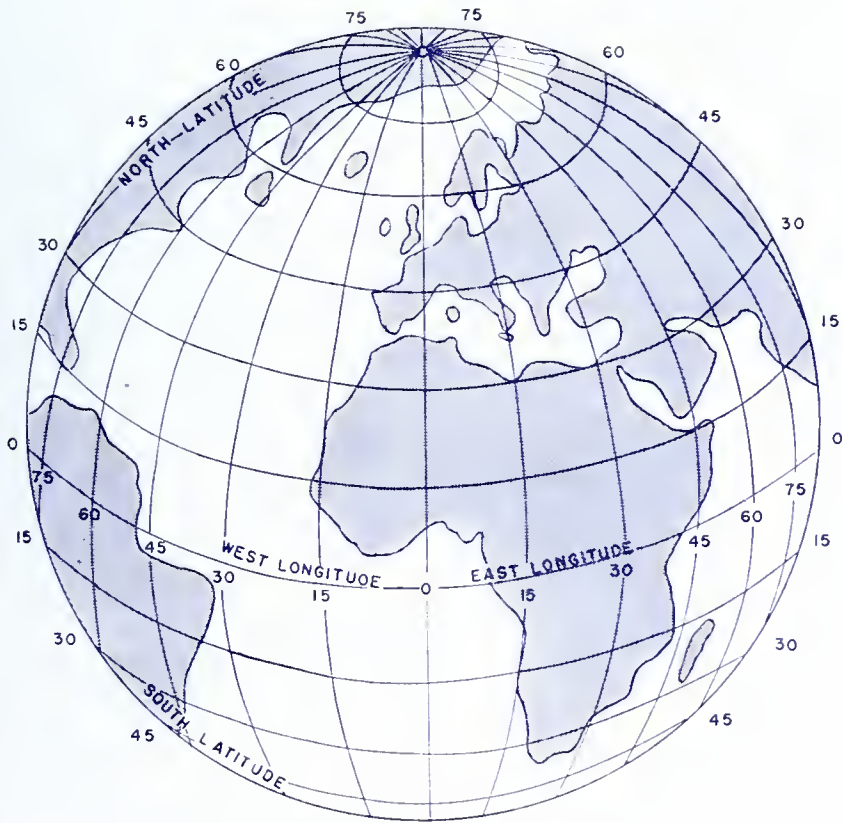


BULLETIN 412

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC INSTRUCTION
HARRISBURG



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COURSE OF STUDY
IN
GEOGRAPHY
FOR
SECONDARY SCHOOLS
A PROGRESS REPORT



BULLETIN 412
1951



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC INSTRUCTION
HARRISBURG

FOREWORD

GEOGRAPHY touches, influences, and molds the lives of all mankind. Because of its insistence upon critical-mindedness and better understanding of the peoples of the world and the environments in which they live, it has a valuable contribution to make to the content and method of secondary education.

This bulletin has been prepared to guide teachers and school administrators in improving the program of geography education in the secondary schools of our State. It represents a restudy of educational opportunities and objectives in terms of present-day needs and responsibilities of youth and society. The bulletin gives detailed suggestions and illustrations based upon the conviction that one's own contacts and experiences provide basic concepts for his education. It includes better practices in teaching and commonly approved types of courses and subject organization. To make the bulletin as practical as possible, it has been the aim to present material from the viewpoint of the classroom teacher and to show how the daily activities within the classroom can be made to contribute to the ultimate goals of education in a democracy.

Grateful acknowledgment is made to the State Production Committee and to the many geography teachers who have helped in the preparation of this bulletin. John H. Schrack, Teacher, Shillington High School, Shillington; Zoe A. Thralls, Professor of Geography, University of Pittsburgh, Pittsburgh; and H. Virgil Grumbling, Superintendent of Schools, Oil City, have reviewed the manuscript. This bulletin has been edited by Rachel S. Turner, Editor for the Department of Public Instruction.

August 1951

A handwritten signature in cursive script, reading "Francis B. Hoar".

Superintendent of Public Instruction

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INTRODUCTION

As a desirable and achievable goal, geography teachers realize the meaning of the statement:

The major purpose of free public education in a democratic social order such as ours is to make the individual socially competent. Social competence means much more than learning certain bodies of knowledge and mastering certain skills. It means the ability to live happy, healthy lives; to do well some part of the world's work. It means desirable attitudes, ideals, intelligent self-control, a sense of fair play, good sportsmanship, consideration for the rights of others, and respect for law and order. It means the ability to live successfully with others; the ability to think, plan, and work together for the common good.¹

Accomplishment in the geography classes of our secondary schools requires thought, preparation, planning, and democratic procedures. The problem of teachers of geography is that of: (1) developing a functional geographic content geared to the needs of all adolescent boys and girls, (2) clarifying the meaning and value of democracy, and (3) determining the best ways to teach the appropriate behaviors. The degree and extent to which geography teachers understand these broad aims and their implications and use them in thinking and developing the kind of geography program that will meet the needs of their classes will determine, in a large measure, the effectiveness of this bulletin.

Geography, like other subjects in the curriculum, has many contributions to make to the content and method of secondary education. Geography is a study of cause and effect: the effect of man's environment upon his needs, interests, problems, and activities. As such it commands a place in the curriculum as the liaison subject between the natural sciences and the social sciences. It is basic in the study of our present-day economic, social, and political problems. There is great need for training in geographic thinking and in geographic interpretation of today's problems.

A program of geographic instruction should begin in the grades and continue on through the senior year of high school. Only in the high school do students possess sufficient intellectual maturity to grasp what geography has to teach . . . If we are to prepare young people to understand the world in which we live, if we are to prepare these young people to think and act intelligently in a world suddenly grown small, where the other countries of the world are no longer days and weeks but only hours away, we must teach them to interpret geographically what they

¹Francis B. Haas, "The Challenge of Leadership," *Journal of the Pennsylvania State Education Association*, February 1948.

hear, read, and see. A nation whose citizens are not aware of realistic and dynamic geographic relationships can no longer continue as a great power.²

Geography makes use of the inherent dynamic drives and potentialities of youth. Since many of the students' normal activities and problems have much in common with the purposes of geography in modern society, the geography class is a particularly appropriate place to deal with them at the secondary level.

This bulletin considers at length: (1) the needs of secondary school youth, (2) ways of discovering and meeting these needs, and (3) the use of unit planning and teaching as a practical device around which to organize the geography program to meet such needs. *Emphasis throughout is upon a meaningful teaching of geography.* The bulletin offers practical assistance in attacking the problems of instruction and classroom methods in terms of life situations. It emphasizes desirable procedures and activities. It provides suggestions relative to content, sources, evaluations, various desirable techniques, and specific illustrations helpful in developing units of work. Chapters are designed to help teachers become more effective in guiding youth to the attainment of those *functional understandings, values, skills, and resulting behaviors* so essential in making democracy work.

Long-Range Program

This manual is unique in several ways. It is the first geography course of study to be published in the State of Pennsylvania that has included courses for grades 7 to 12, inclusive. The preparation of this manual has been in a very real sense a cooperative enterprise. Teachers from all parts of the State contributed material. The content is a presentation of the actual classroom practices of teachers and students from the secondary schools throughout the Commonwealth. In it there has been a shift in the orientation from the subject basis of planning to a program organized in terms of the discovered needs of adolescent boys and girls in our democratic society.

The construction of a curriculum is a gradual and continuous process. It is more like remodeling an old house than it is like building a new one. How can a teacher, who has been trained as purveyor of subject matter, change from a subject-centered program to one designed to serve the concerns, needs, and problems of all youth as they live in our democracy? The material presented within this manual, including teaching-learning procedures, shows that the geography teachers throughout the State are changing their ways of thinking. This is a sign of progress. Since the content of the manual indicates a step forward it is

² Richard L. Cuirrus, "Curriculum Changes Evolve from Our War Experience," *The Bulletin of the National Association of Secondary-School Principals*, Vol. 28, November 1944.

aptly termed "A Progress Report." A wise application of these ideas will result in a geography curriculum better adapted to the real needs and responsibilities of our adolescent boys and girls. A functional curriculum in geographic education can be evolved. Thus these young people, both individuals and members of various groups, may participate constructively as local, national, and world citizens.

Because of the varying stages of knowledge and experience with educational programs geared to the needs of youth, a step-by-step approach to curriculum revision is highly feasible. Each teacher may start where he is, recognizing his own geographic and other understandings, the span of his teaching skills, and the sense of values that give him what security he possesses therein.

Programs directed toward the particular needs of youth and of society are trends which necessitate the acquisition of much additional information on the part of teachers. This Progress Report is an attempt to help teachers to become more effective in guiding youth to the attainment of those understandings, skills, values, and behaviors needed to make democracy work.

It is recommended that each teacher:

1. Read the entire bulletin carefully to become acquainted with the underlying philosophy and plan of the state-wide curriculum revision program.
2. Become acquainted with the basic needs and responsibilities of all youth and find ways in which the subject of geography can contribute to the achievement of these goals.
3. Read widely and observe thoughtfully so as to increase his understanding of the growth and development of adolescent boys and girls.
4. Learn how to use the subject matter of geography as a means of helping pupils to attain individual goals and of acquiring social competence for himself as well as for the students.
5. Learn with the students how to procure and to use effectively a wide variety of geographic materials.
6. Learn how to organize activities according to problems or centers of interest as well as according to the logic inherent within the scope of geography itself.
7. Participate in workshops, study groups, development of experience programs, and other types of in-service preparation on geography itself, on geographic education, and on general education.

8. Expand his own participation in community, national, and world affairs.
9. Encourage wider pupil participation in the class and school activities as well as in community, national, and world affairs.

This progress report is designed to stimulate more interest in cooperative action and research. It should be useful in developing insight into the teacher's own situation. Teachers reading thoughtfully through practices, such as those cited, may discover possibilities not previously perceived. It is hoped that this bulletin will aid teachers in developing more effective teaching procedures, so that each student will realize that he is a part of our democracy and is vital to its perpetuation and improvement. It should also open up new avenues of thought and stimulate teachers to work cooperatively toward the development of a geography curriculum which recognizes young peoples' needs, problems, and responsibilities in a democratic society.

How can a continuing study of the geography program determine its effectiveness and enhance its breadth and depth? Teacher committees, which were organized throughout the State to prepare this report, should continue to function as study groups and should expand their investigations. The plans and procedures offered in this manual should be tried out for evaluation and recommendations. To teachers in our secondary schools, to secondary school administrators, to instructors in our teacher education institutions is given the challenging opportunity of carrying on significant curriculum studies. Upon their completion, recommendations should be made for publication in a future bulletin.

All plans for improving the present course of study should emphasize the contributions which the functional study of geography can make in guiding youth to fulfill their needs, to achieve their goals, and to assume their responsibilities in present-day living—local, national, and international. Each teacher is urged to participate by preparing suggestions and comments resulting from experiences with this bulletin. The check list on the opposite page is provided for this purpose:

REPORT OF REACTION ON USING BULLETIN 412 COURSE OF STUDY IN GEOGRAPHY FOR THE SECONDARY SCHOOLS

A Progress Report

NOTE: The user of Bulletin 412 is requested to fill out this report, after a semester of use, and to send it to the geography committee chairman of his district (See Production Committee page vi).

Have the following been of practical use to you?

CHAPTER I. PROBLEMS OF GEOGRAPHIC EDUCATION	<i>Check</i>	
Planning a Functional Course of Study	Yes___	No___
Improving Individual Teaching	Yes___	No___
Meeting the Imperative Needs of Youth	Yes___	No___
Learning Through Geographic Experiences	Yes___	No___
The Objectives of Geographic Education	Yes___	No___
CHAPTER II. ACHIEVING THE OBJECTIVES OF GEOGRAPHIC EDUCATION		
Organizing Learning by Units	Yes___	No___
Using a Problem-Solving Method	Yes___	No___
Teaching Pupils How to Study Geography	Yes___	No___
Using Community Resources	Yes___	No___
Emphasizing Vocational Opportunities in Geography	Yes___	No___
Correlating Geography with Other Subjects	Yes___	No___
CHAPTER III. SCOPE AND SEQUENCE		
Scope and Sequence in the Secondary Schools	Yes___	No___
Section 1: Grade Seven	Yes___	No___
Section 2: Grade Eight	Yes___	No___
Section 3: Grade Nine	Yes___	No___
Section 4: Grade Ten	Yes___	No___
Section 5: Grade Eleven	Yes___	No___
Section 6: Grade Twelve	Yes___	No___
CHAPTER IV. EVALUATION	Yes___	No___
CHAPTER V. SUPPLEMENTARY MATERIAL	Yes___	No___

What constructive suggestions can you make for future deletion, inclusion, or enrichment in the above chapters:

CHAPTER I

CHAPTER II

CHAPTER III

CHAPTER IV

CHAPTER V

What is your general opinion of Bulletin 412?

(Use other side for comments)



NATIONS UNIES



Course of Study in Geography for Secondary Schools

CHAPTER I

PROBLEMS OF GEOGRAPHIC EDUCATION

THE MEANING OF AN EDUCATION

TO UNDERSTAND the realities of his world and to realize his ideals, an individual needs to command and to expand his innate abilities into desirable types of behavior. What kind of behavior does the individual need to master?

First, he needs to learn how to gain knowledge of the world of realities. Knowledge alone is not behavior any more than iron ore is steel, but knowledge is a basic ingredient. Second, he needs to see problems clearly. Small and large problems face an individual constantly. Unless he defines these problems he cannot seek a solution. He fails to adjust to life situations and may seek release in a dream world. Third, he needs through practice to improve his reasoning ability. This power involves the "thinking through of a problem." Fourth, he must be able through practice to make plans which have possibilities of success. Many people make plans easily, but they do not formulate their plans on reasonable bases for success. Finally, the individual needs through planned classroom practice and direct teaching to gain the behaviors of cooperating with others, either as a leader or as a co-worker. An individual with these varied but interrelated behaviors is a rich, many-sided individual who understands the forces of the world and can use his intelligence in guiding, controlling, and working with both the world of realities and the world of ideals.

How can geographic education contribute to the development of a rich, many-sided personality? Geography, as well as each of the other subject matter fields, can make its own unique contributions to the development of the behaviors of the individual. Geography can contribute a group of functional facts and principles toward an understanding of the world of realities. But mere facts about the world and its people are insufficient. A method of study and a point of view are necessary to give the collected facts significance. *Geography is a study of man and*



GLOBAL GEOGRAPHY

his ways of living as related to regional combinations of specific physical and, to a certain extent, cultural factors.

Studying the geography of the home community, the State, the Nation, or any other region of the world should involve: (1) *the gathering of facts about the area*, (2) *seeking the significance of the facts*, (3) *developing a reasonable order or arrangement of the known facts*, and (4) *evolving functional principles and generalizations*. This procedure involves many problems for its achievement.

In order to have a world picture or world frame of reference, the individual needs to have a knowledge of the "orderly arrangement of facts about the earth and their systematic correlation." A world frame of reference is essential today. Many people, lacking the power of seeing problems, of facing them, and of framing feasible plans, refuse to recognize that life now is on a global basis. The world has always been a physical unity. The climatic regions are world regions. The oceans

with their circulatory systems are world-wide. Man has slowly but surely created another unity.

The migrations of man, the flow of goods, and the modern means of transportation and communication have resulted in a man-made unity of the world. This evolving world community should be regarded as a challenge. Physically, economically, politically, and culturally, the world should be a unit. Economically and politically the world unity appears haphazard and lawless; nevertheless this should be one world, and some form of international cooperation must be worked out.

How can a study of geography aid in achieving some form of international cooperation based on knowledge, understanding, and respect? It should help by: (1) providing a global or world frame of reference, (2) by aiding the individual to understand the many ties that bind the peoples of the world together and impel each nation to take account of the others, but also to recognize forces and conditions which tend to result in diversity, (3) by developing an understanding and appreciation of the problems and achievements of other peoples, and (4) by providing the tools and skills with which to continue to build world understanding.

Technology transforms the earth. As man's knowledge of a region increases and as he discovers new ways of using the resources of a region, he changes the geography. A new means of transportation such as the airplane, a new chemical such as DDT, or a new use for a well-known resource, may mean a new geography. Consider the changes in the geography of northern Canada where man's use of the airplane and his development of methods of separating complex ores have made new mines, new towns, oil wells, pipe lines, and many kinds of human activity in a region which only a few years ago was a wilderness known only to the Indian and the fur trader.

Man lives on and from the earth. He is conditioned by the physical features and conditions of the region in which he lives. However, both he and nature are constantly making changes in the physical environment. Those changes have repercussions—frequently world-wide in their scope—both in the present and in the future. That is why geography is dynamic and why geographic education must be dynamic.

Geographic education must make the intrinsically dynamic nature of geography a reality to the student. To give reality to anything necessitates firing the student's imagination with challenges that have an emotional drive. To do this requires teachers who have the inquisitive spirit, foresight and imagination, a love of the earth and of youth, altruistic ideals, the courage of their convictions, and the willingness to work until goals are achieved.

Specific challenges and problems which may be met by teachers in faculty groups or as individuals are suggested in the sections which follow:

PLANNING A FUNCTIONAL COURSE OF STUDY
IMPROVING INDIVIDUAL TEACHING
MEETING THE IMPERATIVE NEEDS OF YOUTH
LEARNING THROUGH GEOGRAPHIC EXPERIENCES
THE OBJECTIVES OF GEOGRAPHIC EDUCATION

PLANNING A FUNCTIONAL COURSE OF STUDY

A program of curriculum improvement in geography should find out what pupils need most to know and should discover the best ways to teach it to them. It should represent an integration of: (1) pupil needs, (2) social values, (3) subject matter, (4) learning activities, and (5) means of comprehensive evaluation. It cannot underemphasize any single segment. The problems which are involved in its planning require the best that modern research and grass-roots cooperation can provide.

While secondary schools have always achieved results of great significance, there is room for much improvement. Society has been undergoing such rapid change that it is difficult for schools to adapt their programs fast enough to provide the education that is needed. In addition, educational research has been discovering much about what learning is and how it can best be created.

Research workers in education and teachers in action, individually and in groups, have evolved several basic points of view which, for them, create more effective learning. These results of a half century of progress are generally accepted and recorded: (1) in modern textbooks on educational psychology,¹ (2) in books on teaching methods,² (3) in the 1950 edition of the *Evaluative Criteria* of the Cooperative Study of Secondary School Standards,³ and (4) in reports of state and national committees.⁴ These sources present points of view on which each teacher must make decisions for himself.

Are the prestige and consensus of these sources significant? Do they represent the development that comes from scientific research and growth in any profession? Do these sources indicate the "unity out of diversity" which people need to go forward together? Has there been evolved "a

¹ Arthur I. Gates, and others, *Educational Psychology*, New York, The Macmillan Company, 1948.

² *Learning and Instruction*, Forty-ninth Yearbook of the National Society for the Study of Education, Chicago, Illinois, University of Chicago Press, 1950.

³ *Evaluative Criteria*, Washington, D. C., Cooperative Study of Secondary School Standards, 1950.

⁴ See Yearbooks of the National Society for the Study of Education.

scientifically derived philosophy of education"? Is a gradual achievement of these expressed points of view possible?

Many teachers are adapting their work to these points of view. Others are dissatisfied with present results and are looking for more valid curriculum practices. Curriculum improvement programs have been organized in nearly every state and city so that the behaviors of good citizenship and scholarship may be better developed and so that public funds for education may be spent more effectively. In Pennsylvania, in addition to the State curriculum improvement program, four school study councils and twelve annual principals' workshops have been organized to stimulate the changes which are represented. Many local faculty programs are focused toward the development of programs of modern education.

Some of these points of view are listed briefly in order that the user of this bulletin may consider them and may understand some of the bases for suggestions which are made in programs of curriculum improvement and in the pages which follow.

OBJECTIVES IN TERMS OF GROWTH IN WHAT THE LEARNER DOES

*Learning is a change of behavior—thinking, feeling, and acting—which is produced by what the learner does.*¹ There is a difference between teaching for knowing and teaching for doing. The dual problem of helping youth to mature and to acquire desirable behaviors, including skills in the use of subject matter, is broader than has long been assumed.

Teaching for doing involves the principles that:

1. Objectives are best expressed as desirable changes in what the learner does.
2. Desirable changes in what the learner does do not develop automatically as by-products of the teaching of subject matter.
3. Each type of behavior, including skills in the use of subject matter, requires direct provision for its practice in active learning situations and in types of evaluation.
4. Essential values in education lie in teaching the understanding of functional subject matter concepts and providing practice in the application of them to everyday life.

The following considerations are derived from this fundamental agreement:

The teaching and the testing of subject matter data alone have been found to have little effect on functional learning. Teaching that does not change what the learner does—thinks, feels, and acts—does not achieve the purposes of either life adjustment or precollege education.

¹ *Learning and Instruction*, see footnote, page 4.

1. *Functional Understanding*

There is a distinction between the memorized learning of inert ideas and the functional behaviors and transfer values which are developed through meaningful learning activities in unit study. Learning-by-doing activities—which are meaningful to the learner in terms of his life and needs—create intense participation and real learning. The learner adjusts better to his environment. The satisfaction of immediate needs provides gradients for further achievement in the use of subject matter.¹ The pupil learns and remembers what he uses and needs to know. How much learning remains, because of use in school or in life, after a week or a month or a year, should be a matter of great concern and of frequent evaluation.

2. *Meaningful Learning*

Learning situations are meaningful to the learner in proportion as they are—for him—lifelike and worth while. He instinctively resists learning that is—for him—useless and trivial, which lacks unity or relation to his own experience or ambitions. More successful teaching must guide learning activities which are as lifelike and rich as possible for those who are to learn. A meaningful unit, problem, or project challenges the will to learn more than do threats or coercion. Discipline is best when it is inherent in the meaningfulness of the learning.

3. *Learning Activities*

Without the participation of the learner in many types of learning activities, there is excessive memorized learning. Daily assign-study-recite-quiz procedures encourage temporary verbal mastery. Desirable behaviors, including skills in *using* subject matter, are developed by practicing them. Learning for doing involves much doing in the learning.

4. *Problem Solving*

Learning activities of a problem-solving unit type are especially productive of the critical thinking and of the functional use of subject matter which are needed both in school and in life. Problem-solving behaviors are developed through learning activities in which they are practiced.

¹ *Educational Psychology*, see footnote, page 4.

5. *Planning*

Teacher preplanning and pupil-teacher planning are both essential for well-motivated class activities.¹ Pupil participation in planning develops pupil concerns and efforts beyond the shallow ones of getting a mark to please the teacher and to add more credits. The pupil must share if he is to care as much as he should. In educating for citizenship, his whole development as an individual is a matter of concern. He needs practice in planning and in evaluating.

6. *Successful Teaching*

Learning has been defined as the behavior changes—thinking, feeling, and acting—which result from what the learner does. Successful teaching, then, involves setting the stage—with problems, learning activities, and subject matter—that will assure pupil reaction, practice, and attainment of the desired behavior changes, including skill in using subject matter. Classrooms must be transformed from lesson-hearing rooms into learning laboratories.

The above statements cover much research and careful thinking by many people. Coming as they do from well-recognized sources, they may be helpful in solving many problems of curriculum improvement. A great deal of teaching is not very successful in terms of pupil mastery of desirable behaviors. Suggestions from such authoritative sources may point the way to better results through more meaningful and varied pupil learning activities. The suggestions become more clear as they are illustrated in practice. To provide ideas for the gradual curriculum improvement which is necessary to carry them out and examples of some of them in operation is the purpose of this cooperative publication.

Experience has shown that the study of principles does not, by itself, result in curriculum improvement. Specific individual or group problems that call for action, are the best points of departure. However, attacking problems without reference to basic principles does not often result in improvement. A two-way procedure from problems to principles and back again is most effective.

IMPROVING INDIVIDUAL TEACHING

“We want to know how to deviate from the textbook without getting lost; how to introduce and teach a unit; how to plan with pupils. . . .

“We want to know how to change the morale and behavior of groups, how to use the principles of group dynamics; how to help groups reach

¹ *Evaluative Criteria*, see footnote, page 4.

decisions and evaluate their own work; how to relate ongoing activity to the problems, concerns, and tensions of pupils; how to work with a small group in a classroom and, at the same time, keep other pupils profitably busy. . . .

"We want to know how to spot and use community resources; how to find people who know the answers to our problems and how to get their help; how to build units on problems not found in textbooks; how to provide school experiences that will help pupils toward maturity."

These were the grouped replies of three hundred classroom teachers to an inquiry on what help they wanted most.¹

Similar "how to" problems are faced by many teachers today? They have been created by the impact of modern functional education upon an inherited educational process? Statistics which reveal startling personal and social shortages have made their solution a matter of deep concern. Their consideration by school faculties and individual teachers is presented as a challenge in this bulletin. For their solution, trial and discovery must move into the classroom.

For a long time, the research pattern used in education has been based upon the methods which have developed progress in the physical sciences. Controlled statistical experimentation has established the validity of many educational principles. However, these reports are often filled with much statistical jargon. The research value is generally incomplete because the classroom application is seldom accomplished. Because of this, the knowledge of what education should and can do has far outrun its practices.

Reports in the literature of education—and in this bulletin—indicate how some individuals have solved the "how to" problems which teachers present. The results, as reported, are created by factors of the situation which produced them—the teacher, the pupils, the school, and the equipment. They provide stimulation and suggestions for every teacher. *Yet, bulletins and reports are of significance not in what they do for people, but in what they get people to do for themselves.*

Each teacher, through tryout and self-discovery, must repeat the experiences of others in his own classroom, if "how to" problems are to be solved.²

¹ Vernon L. Replogle, "What Help do Teachers Want?" *Educational Leadership*, Volume VII, Number 7, April 1950.

² A. W. Foshay and James A. Hall, "Experimentation Moves into the Classroom," *Teachers College Record*, Vol. 51, Number 6, March 1950.

First attempts may not achieve full success; patience may be needed. As in any kind of problem-solving, learning-by-doing—particularly learning-by-trying—is the best approach. Few efforts in education end in failure. There is much room for improvement. The zeal, vigor, and enthusiasm which the teacher himself contributes result in better total development of students, no matter what type of results may be measured.

Some directions for self-discovery by a teacher are indicated by the self-rating chart on page 10.

EXPERIMENTING IN THE CLASSROOM

In the tryout and evaluation of new materials and methods there are two necessary types of discovery. First, there is an over-all direct type:

When a school faculty, a faculty committee, or an individual teacher decides upon objectives to be achieved, materials for a direct attack upon the objectives are prepared. These materials usually take the form of (1) improved lesson plans or topical-content units which show enrichment—content, objectives, learning activities, and enriched means of evaluation, or (2) problem-solving or other units for which the *objectives*, or phases of them, are titles and bases for planning.

A second kind of classroom tryout and discovery is a day-by-day type:

Problems considered are those that arise out of the local situation and seem of importance to teachers. This problem-solving is constantly underway with teachers to whom improvement in any of the many ways of teaching is a constant challenge. As a type of informal “action research,”¹ it is of tremendous value. Its steps may be described by such simple words as: (1) an idea that something can be done better, (2) a tryout of what seems better, (3) some data are gathered, (4) judgment is used to measure improvement, (5) more “know how” and professional satisfaction result. This “action research” can be done by every teacher with the approval or within the policies of the school administration. Without it curriculum improvement is not possible.

OBSTACLES TO ACTION RESEARCH BY TEACHERS

Secondary school teachers and principals must be free to try out better methods and materials. Otherwise, the *status quo* will not be disturbed. Individual initiative will be a lost virtue. Administrative encouragement and provision for time and materials promote faculty and individual teacher action research and self-discovery.

¹ Stephen M. Corey, “Action Research, Fundamental Research, and Educational Practices,” *Teachers College Record*, Volume 50, May 1949.

A TEACHER'S SELF-RATING CHART

Check

1. Can I define the actual pupil behaviors—thinking, feeling, and acting—which I am trying to develop?
2. Do I guide learning activities in which desirable behaviors are practiced?
3. Can I depart from daily recitation (textbook assign-study-recite-quiz procedure) without getting lost?
4. Can I plan and guide an experience *subject matter* unit?
5. Can I plan with pupils and guide an experience *life adjustment* unit?
6. Do I know how to use the principles of group dynamics?
7. Do my pupils feel free to discuss their problems with me?
8. Can I relate content teaching to the adolescent problems, concerns, and tensions of pupils?
9. Can I subgroup, form committees, etc., and keep all working on a well-motivated level?
10. Do I know how to spot and use community resources?
11. Do my students apply the principles of my subject to their own problems?
12. Do I involve the introverted and “isolates” in group activities?
13. Do I teach my pupils how to read and study my subject?
14. Do my students use good English in oral and written reports?
15. Do I continually invite student problems for discussion and problem-solving?
16. Are my students having actual, frequent practice in critical, inductive reasoning?
17. Do I work with a school club to further special interests?
18. Have I had adequate preparation in fields which are related to my subject?
19. Do I have an adequate knowledge of my object—the learner?
20. Have I had intensive and modern preparation in the subject I teach?
21. Do I relate my work to that of other subject teachers in my school and request similar cooperation?
22. Do my students understand the vocational opportunities in my subject field or work to which it may lead?
23. Do I praise more often than I blame?
24. Do I subgroup to meet the special needs of vocational and precollege students?
25. Do I make a special effort to locate and encourage talented youth?

[illegible]

Grass-roots faculty experimentation is an essential part of a forward-looking program that seeks the more effective use of public funds. If funds are not to be spent in vain, schools must be more than custodial. "Our schools are not experimental"—these are timid words. Many experimental programs stem from public dissatisfaction and lay assistance. It is significant that parents express the criterion of "ability to work with pupils" as the highest measure for teacher selection. Much of this ability comes from the knowledge of and provision for the needs of youth. This is the concern of the following sections.

MEETING THE IMPERATIVE NEEDS OF YOUTH

The situations of everyday living are found in five major areas of human life: in the home; in the community; in work; in leisure time; and in spiritual activities. From these five sources come the problems and situations which every learner faces and around which learning activities should revolve to provide practice in desirable types of behavior.

Life situations are the curriculum; organized bodies of subject matter (units, blocks, projects, etc.) are the resource materials to be used as they serve the purposes of the learner. These situations present the recurring problems with which all citizens must be able to deal and therefore furnish guidance as to the nature of balanced development of the learner.¹

1. In any group of needs, *health behaviors* are of major importance. Two phases in which education in geography can assist in satisfying health needs are in understanding the production of foods and in providing recreational experiences. The natural environment of practically all regions lends itself to the growth of foods for man's diet as well as providing places for diversified recreation.

2. Geography education can help to satisfy the personal *emotional and psychological needs* which are worthy of consideration. Proper attitudes of respect for all peoples of different race, color, and creed, at local, national, and international levels are certain to be experienced as a desirable outcome of functional geography instruction.

3. Many situations in geography education can enable an individual *to communicate* his ideas by language and by other media. To make one's ideas clear; to be able to understand the ideas of others; to read, listen, and observe intelligently; to interpret number values and symbols; to compute; to plan effectively—all desirable factors in developing intellectual power—are well provided for in proper geography experiences.

¹ Florence B. Stratemeyer and Fourteen Associates, *Developing a Curriculum for Modern Living*, New York, Bureau of Publications, Teachers College, Columbia University, 1947.

4. Adequate education today should enable one to respond to authority; *to determine responsibility to one's self and to others*; to preserve integrity in human relationships; to help meet the needs of others; and to secure aesthetic satisfaction through the natural environment. Growth in these, as well as developing responsibility for moral choice and aesthetic expression and appreciation, is well provided for when the learner secures definite understandings, attitudes, and behaviors.

5. Geographic education can provide a wealth of situations for the individual *to grow socially through practice*. Person-to-person experiences of a social and working nature, group membership, as a leader and co-worker, and intergroup relationships of a racial, religious, and socio-economic nature are desirable parts of real geographic learnings.

6. The need *to grow in ability to cope with environmental factors and forces* is served by the planned use of correct geographic understandings dealing with natural phenomena—making adjustments to atmospheric conditions, adjusting to or controlling factors conditioned by the earth's structure and contents. Dealing with plant and animal life and using advisably the physical and chemical forces of nature are problems of the interrelationships between man and his natural environment.

7. Man uses tools, machines, equipment, instruments of communications, and various means of transportation. He uses his resources to help him make adjustments to his natural environment. The ability to make adjustments under varying conditions and circumstances is a primary objective of education which geography serves.

8. In the consideration of economic, social, and political structures and forces, man must provide for the work needs of society, assume *individual work responsibility*, and achieve effective workmanship. He must make the world's goods and services available, buy and sell the world's goods and services, and manage money. He must work in and through the family group. If he is to work and serve, he must use the earth's resources. He can serve others in helping to supply the goods which they need, and purchase from others the commodities which he wants. *The behaviors of fitting into the economic, social, and political pattern and of becoming a good citizen are further objectives of education in which geography learning activities contribute a large share.*

The materials suggested in this bulletin, grades 7 to 12 inclusive, provide content for pupil-teacher planning in various classroom situations. Learning activities can be so planned with these organized bodies of subject matter that the learner will find satisfaction in achieving through practice the desirable behaviors which are required for worthy home life, good citizenship, vocational responsibilities, use of leisure time, and moral and ethical living.

DETERMINING THE NEEDS OF YOUTH

In order that geography teachers may have data readily available, the survey included in the Appendix of Bulletin 243, *Curriculum Improvement by a Secondary School Faculty*, should be consulted. The Ten Imperative Needs of Youth¹ are similar to those included in the 1950 *Evaluative Criteria* of the Cooperative Study of Secondary School Standards. The Study proposes that:

It is generally accepted that the main purpose of secondary education in American democracy is to meet the educational needs of all youth of secondary school age . . . Youth have both common and individual needs . . . Statements (of needs) are, in reality, objectives for secondary schools. . . .

To achieve the needs of youth, practice in the learning activities which are involved in the following geographic competencies are essential:

GEOGRAPHY OBJECTIVES RELATED TO NEEDS

I. *Work*

The individual should:

1. Realize that everyone must have something to sell, either goods or services
2. Understand that when he sells goods or services, he is to some extent selling those goods or services abroad
3. Understand that his capacity to sell is affected by environmental conditions at home and abroad
4. Understand that a knowledge of people and their environments helps make him an intelligent participant in economic life
5. Realize that the needs of people throughout the world may help him in choosing an occupation or profession
6. Realize that our enterprise economic system and our natural resources have made possible a wide choice of occupations and professions

II. *Health*

The individual should:

1. Realize the dangers of world-wide epidemics and plagues due to extensive travel and modern rapid transportation
2. Realize that international cooperation can stamp out world-wide epidemics and plagues
3. Realize that soil nutrients are depleted through erosion and this may seriously affect the health of people

¹ "The Ten Imperative Needs of Youth of Secondary School Age," *The Bulletin*, National Association of Secondary-School Principals, Number 145, March 1947.

4. Realize that health affects one's ability to produce salable goods and this in turn affects the standard of living
5. Learn ways of improving his health habits by studying the health habits of people abroad
6. Realize that climate affects one's efficiency

III. *Citizenship*

The individual should, through planned classroom activities, have the practice which he needs to insure that he will:

1. Get along well with other members of the group
2. Take an active part in committee work
3. Share in planning the work of the classroom
4. Realize that as an American citizen he enjoys many privileges and that each privilege imposes a duty
5. Take an intelligent interest in current problems
6. Know that civic responsibility is now world-wide
7. Show growth in international understanding and respect

IV. *Home and Family*

The individual should:

1. Acquire a deeper appreciation of the social learnings gained in grades 1 to 6 (See Bulletin 233B, pp. 123-130)
2. Realize that home and family living is a common but not identical experience for all mankind; that everyone everywhere is concerned with this problem
3. Realize that all people are concerned with the problem of providing the necessities and the luxuries of life
4. Realize that he is dependent upon home life in other areas and those homes may in turn be dependent upon his home
5. Realize that family traditions are not necessarily odd but may be reasonable
6. Realize that the home is the foundation of community living

V. *Thrift*

The individual should:

1. Understand that he cannot sell goods or services unless he purchases the goods and services of others; that this applies to nations as well as to individuals
2. Know what his community has to sell and where the markets are located and might be extended
3. Know what his community may buy and where those goods are bought

4. Know that natural forces may cause prices to fluctuate
5. Realize that there is a direct relationship between the price of goods and the cost of labor
6. Realize that government regulations help determine the price of goods
7. Understand the effect monopolies have upon price of goods
8. Understand the effect competitive enterprise has upon prices
9. Understand that vast markets abroad have helped us in part to reach our high standard of living

VI. *Scientific Understandings*

The individual should:

1. Learn enough about the earth environment to enable him to direct and actually make successful adjustments to its natural forces and resources
2. Realize that man cannot be understood apart from his habitat and that an examination of his habitat includes land forms, climate, natural vegetation, native animal life, soils, mineral and water resources
3. Gain understandings of significant generalizations regarding man's environment
4. Understand how a knowledge of geography helps solve some problems of living together which modern science has created or is creating
5. Apply the scientific method of solving problems of man in relation to his environment
6. Be concerned with and active in the conservation of natural resources
7. Learn to use efficiently the tools of scientific research in geography: actual landscapes and waterscapes, maps, globes, pictures, sketches, graphs, charts, statistics, and printed material

VII. *Appreciation*

The individual should:

1. Take an active interest in improving the appearance of the classroom and the school building
2. Take an interest in adult groups in the community which promote study of literature, art, music, or nature
3. Enjoy more fully art, music, and nature
4. During his leisure time, revisit the places visited on school trips
5. Take an interest in good literature related to his geography studies
6. Realize that the music of a nation reflects the characteristics of the people

VIII. *Leisure*

The individual should:

1. As a result of his field trips find in the community places for wholesome recreation
2. Develop an interest in a hobby
3. Use leisure time for enjoyment of geography as well as the literature, art, and music of other lands
4. Engage in school projects
5. Be active in community projects

IX. *Respect for Others*

The individual should learn through practice in active classroom learning situations how to:

1. Work well in a group when someone else is chairman
2. Realize that committee work is part of democratic procedure
3. Show appreciation for work of other group members
4. See himself in relation to smaller and larger groups
5. Understand dependence of people upon one another and the need for cooperation
6. Initiate and regulate his own behavior
7. Make a good committee chairman
8. Judge fairly the success of his own work and his personal development

X. *Rational Expression*

The individual should develop through actual classroom practice the behaviors which are shown by:

1. Expressing himself well in written and oral language
2. Knowing how to study
3. Reading daily newspapers and current magazines
4. Using the *Reader's Guide* and other indexes
5. Using the landscape, pictures, maps, globes, statistics, graphs, charts, printed matter, objects, specimens, and models
6. Selecting and gathering facts before forming an opinion

LEARNING THROUGH GEOGRAPHIC EXPERIENCE

The development of an instructional program that makes for growth and development of young people has its foundations in the natural concerns, interests, and problems of adolescents and in the demands which society makes upon youth. The program should provide full opportunities for young people to pursue interests and solve problems so that they may develop and modify behavior in ways consistent with the democratic ideal.

In this kind of program subject matter is not learned primarily for its own sake. It becomes useful chiefly in so far as it contributes to the solution of meaningful problems.

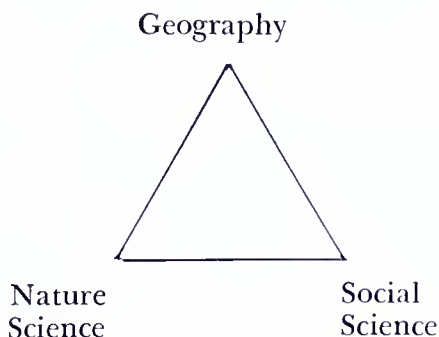
FUNDAMENTAL ASPECTS TO KEEP IN MIND

1. *Secondary school pupils have basic concerns and problems which are common to all and problems which are individual or specialized in nature.*
2. *Educational experiences should be pointed toward developing and modifying behavior, a process which results from the solution of meaningful problems. Facts and information are important largely to the extent that they further problem-solving.*
3. *The experience actually faced by pupils indicates the starting point. The persistent life situation or situations which are of immediate concern give the clue to the direction in which experiences are guided*

Instruction which seeks to deal with life concerns of pupils cannot be based upon a rigid course of study. There should be guiding principles, but there should be flexibility. Educational experiences which provide for the growth and development of young people must involve teacher-teacher and teacher-pupil planning. New methods, new materials, new relationships among teachers, parents, and pupils, and new processes of evaluation gradually result. This improvement sets problems which challenge planning, trying out, and greater achievement.

Education for living upon the earth involves two problems: (1) learning enough about the earth's environments to enable us to make successful adjustments to its natural forces and resources, and (2) learning enough about other people to enable us to get along with them. These in turn involve the following geographic problems:

1. Geography should emphasize the interrelationship of man and his natural and cultural environment.



2. Geography should be concerned with the distribution of social and natural phenomena within the local community, state, nation, and the world. It deals with people and the ways in which they live and make a living and shows how their lives are related to the natural factors of climate, topography, soil, natural resources, and other elements of the natural environment.

3. Geography must be dynamic, not static. Man and nature are constantly making changes in the physical environment. These changes which are frequently world-wide in their scope have repercussions which affect the present and the future.

4. Geography has as its aim the observation, description, analysis, and interpretation of the regions of the world as to their natural and cultural settings. The field of geography has many branches. In any field of science, knowledge must be organized into logical systems so that in attacking and solving problems the knowledge of facts, generic concepts, and principles that bear on the problems are readily available. In geography, knowledge is organized into systems in two different ways—that of *systematic geography* and *regional geography*.

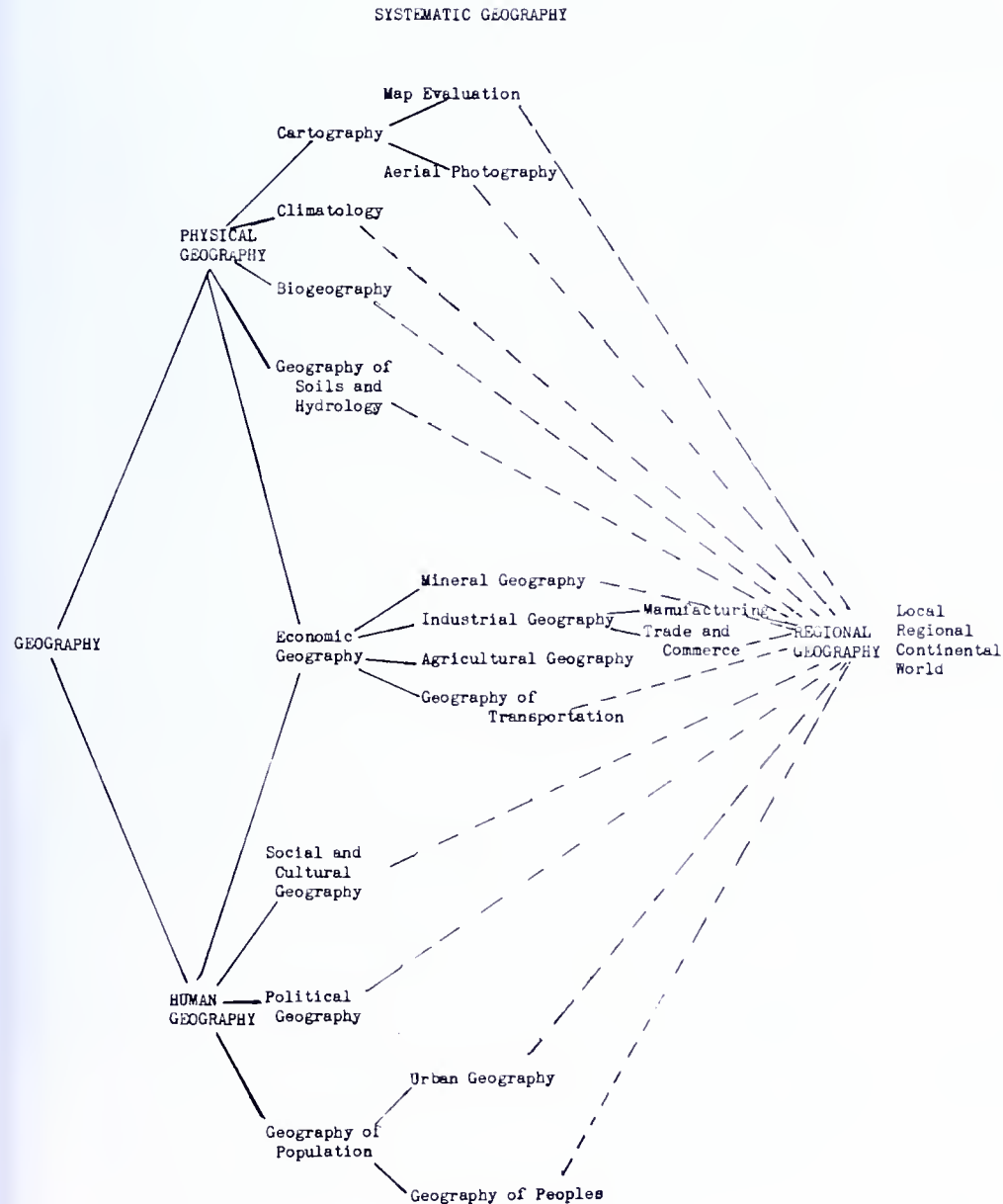
In order to illustrate the organizational structure of geography the accompanying diagram is presented. The organizational chart indicates that the two main branches of systematic geography are (1) *physical geography* and (2) *human geography*.

Physical geography deals with the components of the natural landscape. Such special branches as physiography, climatology, geography of soils, biogeography, and cartography are developed.

Human geography deals with the cultural setting and is divided into four main branches, namely economic geography, cultural geography, political geography, and geography of population. Each of these has several subdivisions: for example industrial geography, mineral geography, agricultural geography, and geography of transportation come under economic geography.

Political geography considers military geography and geopolitics. The geography of population includes urban geography, rural geography, and studies of population distribution. The fourth major subdivision is cultural geography, which has as its specialties social geography and anthropogeography.

Regional geography is the integration of all or selected branches of systematic geography, focused on a particular place on the earth. Almost all geographers agree that the clearest view of geography is to be obtained in regional geography when the geographer observes, describes, and interprets the relationships between the natural environment and man's activities in a given area.



THE OBJECTIVES OF GEOGRAPHIC EDUCATION

The preceding sections of this chapter bring into focus the objectives of geographic education. One method of formulating objectives is to state them in terms of major understandings, desired attitudes, interests, appreciations, values, skills, and behaviors.

A detailed development of this method follows:

I. *Major Understandings*

1. To recognize the importance of the interrelationship of environmental factors and the interdependence of regions and of nations
2. To recognize how and why regions differ as they do, how human adjustment in one part of the world is made different from others, and how the adjustment in one region affects that of another
3. To recognize the importance of wise utilization of our land and other natural resources
4. To recognize regional maladjustment
5. To understand the environments of the different nations of the world out of which spring local and regional problems which cause the world's peoples to think and act as they do
6. To gain a sympathetic understanding of and respect for the conditions and problems of the people of other countries which are associated with and grow out of the kind of land in which they live and to help the pupil get the point of view of foreign peoples
7. To understand the geographic basis of industry, of transportation, of peace, and of war
8. To understand that changes in transportation methods will continue to modify the paths of commerce, develop new industrial regions, change the land, water, and air utilizations, alter cultures, cause decline and fall of nations and empires
9. To see the whole of the world's picture, to understand our position in it and our relation to it
10. To recognize that the economic, political, and social conditions, problems, and conflicts of peoples in various parts of the world, are in part an outgrowth of their natural environments or of their use of their environments
11. To recognize that many factors other than the natural—social, historical, economic, and political—contribute to an understanding of man's use of natural resources
12. To recognize that living patterns in the different regions of the world are related to varying natural environmental conditions throughout the world, and that the specialization in work which in part grows out of these differences has contributed heavily to the economic, political, and social interdependence of peoples of the world

II. *Desired Attitudes, Interests, Appreciations, Values*

1. To appreciate the interdependent nature of contemporary society
2. To appreciate the function of each group of people in the design of the whole
3. To be cooperative
4. To have respect for achievements of other peoples
5. To develop intellectual curiosity, open-mindedness, critical-mindedness, and mental honesty
6. To create a habit of thinking in terms of the entire globe
7. To develop learning experiences which will give our youth opportunities to look at affairs from a geographical point of view
8. To be tolerant of the opinions and beliefs of others
9. To take an interest in worth-while leisure activities
10. To value the place and worth of all peoples in the community, state, nation, and world
11. To think critically about local, state, national, and international problems
12. To think realistically in terms of specific regions, specific peoples, and their specific problems
13. To appreciate the love of freedom felt by all peoples
14. To develop attitudes which will make "one world" possible
15. To develop interests in reading geographic materials

III. *Skills and Behaviors to be Developed through Classroom Practice*

1. Securing geographic information from landscapes, pictures, maps, globes, graphs, statistics, and reading materials
2. Interpreting and evaluating current events, especially those of international importance
3. Preparing and presenting data by means of maps, charts, models, specimens, statistics, tables, slides, graphs, radio speeches, pictorial materials, motion pictures, and written materials
4. Raising significant geographic problems from facts gained and effectively organizing facts from various sources in order to solve geographic problems
5. Thinking accurately, following directions, making effective use of the dictionary, atlas, textbook, etc.
6. Working in groups or committees
7. Evaluating work and tools of learning
8. Applying geographic knowledge as an aid in understanding and interpreting present and past events
9. Discussing major problems that grow out of our industrial and economic development
10. Using library facilities
11. Collecting data by field trips and by contacting individual persons, agencies, and authoritative agencies
12. Coordinating work with other learnings



CHAPTER II

ACHIEVING THE OBJECTIVES OF GEOGRAPHIC EDUCATION

ORGANIZING LEARNING BY UNITS

The material for this Progress Report, like most courses of study, has been organized on the unit basis. An approach involving consideration of the needs and concerns of youth and of community problems, is possible only by planning a functional attack as a part of the usual framework of subject organization. A program which is based upon the major concerns of life focuses instruction upon comprehensive and significant topics and problems. This is the way in which people learn.

Problems and units for grades 7 to 12 inclusive have been provided in order to secure adequate attention to the areas introduced through this course of study. These illustrate various methods of developing units, and promote the wholeness which is necessary for understandings, attitudes, and desirable types of behavior.

The units, with the activities presented in this bulletin, illustrate the manner in which geography teachers and geography classes in various schools of our State are using problems connected with food, clothing, shelter, and other basic areas of living in the planning of learning areas to meet the needs of youth. These units show that instruction is being organized with consideration of life's problems rather than only on a subject-matter basis. *They also show that there has been a definite shift from the teacher-dominated recitation to teacher-pupil planned and executed learning activities. Classrooms are becoming learning laboratories.* They are organized around persistent problems toward which activities of the pupils are directed.

Many units are offered as patterns upon which teachers can base units applicable to their own situations. It is not intended that they be used as a set guide, for most of them have been designed to meet the problems and needs of boys and girls in specific localities. Each community differs in respect to the needs and backgrounds of the students, educational facilities, and community resources; therefore, each school will need to make its own local modifications. Yet certain patterns and objectives will remain common to all schools.

← COMMITTEES AT WORK ON VARIOUS PROBLEMS OF THE UNIT

Through the unit approach a variety of insights and techniques can be centered upon specific problems of paramount importance. The unit activities include educational situations that are real to the pupils; they come within their experiences in life and are therefore meaningful to them and afford adequate and proper opportunities for self-expression. If we want our students to behave democratically, we must provide experiences in which they act democratically and achieve goals that they value.

It will also be noted that the teachers have given much thought to the problem of correlation. Not only have the activities been grouped under comprehensive captions, but teachers and students have shown how they selected pertinent data from other fields of knowledge that have elements of value in the given geographic theme or unit.

Teachers who are interested in planning and carrying out an experience unit will find the following steps helpful:

1. Discover the needs that are common to all the pupils.
2. Discover the individual needs and interests of pupils.
3. Discover the specific contributions that the unit under consideration will make toward meeting these needs.
4. Organize the subject matter to be used in the unit.
5. Find ways in which to correlate other subjects with the unit.
6. Discover methods of introducing the unit.
7. Collect a variety of materials that will be useful to the class.
8. Arrange a work plan, committees, etc.
9. Give pupils an opportunity to share in the planning.

Teachers will find that the unit organization gives greater opportunity for rounded consideration of a comprehensive problem than there would be if part-by-part consideration were the basis for instruction.

Unit organization in geographic education recognizes the concerns of our people—today and to a limited extent tomorrow—about regions all over the world. These units should recognize the demands of modern life upon youth and adults—their responsibilities as well as privileges. To enjoy the latter and fulfill the former, people need functional geographic understandings, skills, and attitudes assembled on the basis of life-problem and geographic units.

PLANNING UNITS

Geography education lends itself readily to a program of developing units at the elementary and secondary school levels. Geography influences the very being of each individual and the existence or nonexistence of people in every portion of the earth. Unique opportunities occur in geography education units whereby students, teachers, lay folk, and agencies, near and far, live and learn cooperatively. Geography understandings necessitate adventures beyond the school room and school building, beyond the local community, out into the great wide world.

1. *Let's Study the Characteristics of the Children in the Class.*
 - a. What are their dominant interests? Abilities? Attitudes?
 - b. At what stages of development are they now? What needs?
 - c. How best can each one be guided to the next stage?
2. *Let's Study Our Community—Immediate and Farther Away.*
 - a. What are the major and minor activities, conditions, agencies, etc.?
 - b. What are the community resources, natural and human, possibly useful in geography education?
3. *Let's Examine the Findings and Facilities of Geography in Their Functional Relations to Our Educational Philosophy.*
 - a. Which regional studies are suited to given maturity levels?
 - b. What organizations of geographic knowledge and which specific learning aids suit elementary or secondary levels?
4. *Let's Investigate Specific Contributions of Functional Geography Education.*
 - a. How can geography education contribute to the fulfillment of the personal and social needs of these learners?
 - b. Which geographic materials, contacts, and adventures will be helpful during their living-and-learning geography activities as life adjustment experiences?
5. *Let's Plan a Unit of Work.*

First, the teacher and pupils select a topic or problem for study. An overview of possibilities is organized. This outline recognizes: (a) the needs and interests of the class, (b) major goals achievable, (c) worthwhile geographic concepts and understandings, expressed in part as geographic relationships, (d) functionally related experiences in and out of the classroom, (e) related materials and experiences from other fields of learning that will present opportunities for the learners' initiative, provide enrichment, and facilitate the utilization of individual differences.

Then teacher and class examine geographic pictures of the region, or use other motivating techniques whereby questions are raised and interests expressed. Soon class members suggest the means for seeking answers, also possible useful learning materials. A working plan ensues. Class members and teacher—learners together—plan for individual and committee activities that center around the desired goals.

6. *Let's Carry Out the Unit.*

The teacher's readiness for unit procedures will largely determine how this phase will develop. Together teacher and class members discover parts of the geography textbooks that should help carry out their plan. With the teacher's encouragement, other books, magazines, maps, pictures, specimens, as well as persons and agencies, will be added to the "Sources for Information and Other Help." Groups of class members volunteer to seek answers for selected questions. The search has begun in the classroom, next in the school building, and then beyond. Perhaps excursions are taken by the entire class. Interviews are arranged by and for committees or individual class members.

At times group and class discussions check the geographic findings to clear up "unknowns" and obtain "fresh ammunition" to discover whether geographic understandings are shaping up, and to learn important ideas from committees' carefully organized reports. Often some concrete expression work is prepared—map, model, sketch, graph, chart, bulletin board, booklet, etc. Other criteria for evaluating sources and work gradually emerge.

Geography concepts and understandings are organized, checked, and evaluated. Associated skills, attitudes, and behaviors receive attention. Major emphases are on geography living-and-learning experiences. But other educational phases, as the language arts, science, music, and art are used to strengthen and enrich the geography learnings.

7. *Let's Evaluate Our Unit*

After teacher-class evaluations (see below) the teacher will prepare her own summary and evaluation of the entire unit.

Together teacher and class measure or evaluate:

- a. Their achievements or growth in living and learning geography through experiences in life adjustments, as individuals and as groups or committees
- b. Their experiences with each type of learning tools—pictures, printed matter, maps, specimens, models, statistics, experiences or excursions, interviews, and other techniques employed.

- c. The extent to which each learner has acquired geography understandings (including relationships between man and his environment), geographic skills and ways of working, geographic attitudes and resulting behaviors essential for constructive, successful, abundant living in our democracy.
- d. A functional unit test, based on the objectives, is usually administered. This is followed by direct teaching and drill where need is shown.

TRENDS IN UNIT AND COURSE OF STUDY PLANNING

A comparison of older and newer practices indicates trends in teaching.

Characteristics of Older Practices

1. Systematized subject content is taught for its own sake.
2. There is no relation to other subject fields or to needs of youth.
3. Grade sequence is based upon mechanisms of the subject content.
4. Maturity or problems of the learner are not considered.
5. Assignment-study-recitation-examination types of procedures are uniform.

This older type of subject specialization alone accounts in part for much personal maladjustment and social tension.

Characteristics of Newer Practices

Transition is away from the set organization of curriculum materials and procedures, which center upon subject mastery alone, to those directed primarily toward the learner himself, toward desirable understandings and behaviors. Student achievement of functional information, principles, attitudes, and behaviors reveals successful types of planning and action.

The newer types of planning are presented in steps to suggest evolution in planning directed to basic needs. Such planning also illustrates two schools of thought: (1) the sequence must lie in the logic of the subject, and (2) the sequence must lie in the problems and needs of the learners. Both points of view have undoubted values. Units of both types are needed to provide for the attainment of functional information and its synthesis in desirable understandings, attitudes, and behaviors.

A. TOPICAL UNITS WHICH EMPHASIZE FUNCTIONAL VALUES AND LEARNING EXPERIENCES

This easy type of planning is illustrated by the following horizontal charts:

TOPICAL UNIT PLANS WITH LOGICAL ORGANIZATION

1. ON CANADA

WHAT?	WHY?	HOW?	HOW MUCH?
<i>Content</i>	<i>Educational Objectives</i>	<i>Learning Experiences</i>	<i>Evaluation</i>
The natural environment of Canada is being used to provide us with nutritious food and to produce food for the Canadians.	<ol style="list-style-type: none"> 1. Citizenship 2. Science 3. Health 4. Leisure 5. Communication 6. Thrift 7. Home Life 8. Appreciation <p>Which of the above can be developed during this unit study?</p>	<ol style="list-style-type: none"> 1. Teacher-pupil planning and executing 2. Filmstrips and lantern slides 3. Committee work 4. Debates 5. Group discussions 6. Investigation pictures 7. Motion pictures 8. Projects: <ol style="list-style-type: none"> a. Collection of pictures, etc. b. Map-making c. Planning trips 	<ol style="list-style-type: none"> 1. Subject matter tests 2. Performance tests 3. Attitude scales 4. Anecdotal records 5. Pupil diaries 6. Self-evaluation check lists 7. Interest inventories <p>See Chapter IV, "Evaluation."</p>

In the above type of lesson plan:

- a. Subject content (What?) is a basic factor upon which planning rests. This preserves logical organization of the subject.
- b. The needs of youth (Why?) provide direction for selection of content that is meaningful and functional and for the organization of learning activities.
- c. There is development of social competence (How?) through practice in actual experiences.
- d. Evaluation is broadened to include an appraisal of ability to use knowledge.
- e. This method is an easy transition from the teaching of content alone by daily assign-study-recite procedure. Many teachers use the topical unit plan habitually.

Another example of an easily planned unit of this type follows:

1. Overview by teacher

2. Planning with pupils

What do we know now? What do we need to find out? How shall we find out? What work plan shall we use?

Content	Objectives	Learning Activities
<ol style="list-style-type: none"> The atmosphere <ol style="list-style-type: none"> Effects of weather on everyday life United States Weather Bureau Properties of Air <ol style="list-style-type: none"> Altitude Air pressure Water in the air Cloud types Condensations Local weather predictions; weather maps The air masses <ol style="list-style-type: none"> General air movements Origin of storms Can we control the weather? <ol style="list-style-type: none"> Adaptations to weather Attempts at weather control <ol style="list-style-type: none"> Silver iodide Carbon dioxide Stopping destructive hailstorms The future of weather control Artificial lakes Irrigation projects Changing ocean currents Shelter belts and forests Conservation <ol style="list-style-type: none"> Prevention of erosion Wise use of resources Use of geographic statistics Study of regions <ol style="list-style-type: none"> What type of weather is best? How does man adjust to varying conditions? Other content suggested by pupils 	<ol style="list-style-type: none"> To understand what causes storms To do away with incorrect weather superstitions To realize how effectively man has adapted himself to various weather conditions To learn how the Weather Bureau functions and how weather predictions save valuable food crops To learn how to read and interpret weather maps To learn how to interpret weather statistics concerning geographic regions Other objectives developed through teacher-pupil planning 	<ol style="list-style-type: none"> Make a barometer and check pressures Collect pictures showing cloud types Draw several patterns of snowflakes Make a hygrometer and check the readings daily Make a physical map; locate the major deserts of the world Check weather beliefs Talk by a weather man Air conditioning talk by an engineer Check how weather affects air travel, etc. Other individual and committee activities developed by pupil-teacher planning Culminating activities—pupil reports, exhibits, models, graphs, etc. <p><i>Evaluation:</i> See Chapter IV</p>

B. LIFE ADJUSTMENT UNITS IN SUBJECT AREAS

This type of planning develops from the following points of view:

- a. Everything in our cultural heritage cannot be learned by everyone. What should be learned should be taught directly. Objectives or phases of them should become unit titles.
- b. Selection of objectives should be made on the basis of:
 - (1) Maturity and needs of learners
 - (2) Cruciality
 - (3) Universal application
 - (4) Responsibility of the school to do what other agencies cannot do
- c. Mastery of fundamental behaviors in Ten Imperative Needs is possible because of the focus of instruction upon them and their actual and continued use in functional learning situations.
- d. Primary aim to "cover the book" has little place in a life-problem-unit program. The needs of learners form the basis for course and unit planning. These take the form of the unit plan on page 31.

The needs of youth govern the planning of functional learning experiences. Desired outcomes are to be expected from direct experiences using many sources of content. Learners are encouraged to participate and contribute at their own level of maturity and need.

More effective organization will depend upon extensive development, tryout, evaluation, and reports by teachers who have followed the transition from planning for content mastery alone to planning for desired objectives—the needs of youth and of our society—through both enriched content teaching and through the development and use of life-problem units. Several sample units of this type are included in Chapter III.

LIFE ADJUSTMENT UNIT PLAN
WHY SHOULD WE APPRECIATE OTHER PEOPLES?
THE CANADIANS

<p style="text-align: center;">WHY?</p> <p style="text-align: center;"><i>Objectives</i></p>	<p style="text-align: center;">HOW?</p> <p style="text-align: center;"><i>Experiences</i></p>	<p style="text-align: center;">WHAT?</p> <p style="text-align: center;"><i>Content</i></p>	<p style="text-align: center;">HOW MUCH?</p> <p style="text-align: center;"><i>Evaluation</i></p>
<ol style="list-style-type: none"> 1. To create an understanding of other people 2. To develop an appreciation of American citizenship 3. To understand the profit motive and its influence on trade 4. To see how our welfare depends upon world welfare 5. To develop functional geographic information and understandings 6. Other objectives developed by pupil-teacher planning 	<ol style="list-style-type: none"> 1. Study of how we obtain food from Canada 2. Film "Canada" 3. Stripfilm and slides on Canada and Northern U. S. 4. Committee assignment on comparison of foods grown in Canada and the U. S. 5. Group and individual reports on health status of people of the two countries 6. Debate, "The physical regions of Canada are better suited to the growing of some needed fruits and grains than those of the U. S." 7. Talk by members of the group who have vacationed in Canada or by adults who have traveled or lived there 8. Collect pictures of life in Canada 9. Other activities developed by pupil-teacher planning 	<ol style="list-style-type: none"> 1. Textbooks 2. Literature from manufacturing and travel agencies 3. Films, slides, etc. 4. Picture collections 5. Souvenirs 6. Atlases 7. Maps, charts, and graphs 8. Anthologies of prose and poetry of Canada 9. Resource material provided by pupils 	<ol style="list-style-type: none"> 1. Self-evaluation and class evaluation and discussion 2. Evaluation of the ability to read and interpret graphs, maps, charts, etc. 3. Tests on the listed objectives, interests, attitudes, and appreciation 4. Appraisal of leadership and followership attitudes 5. Subject matter tests which test gain in functional geographical understandings 6. Evaluation of the ability to cooperate and plan effectively. See Chapter IV 7. Reteaching and drill where need is shown

SUGGESTED OUTLINE FOR AN EXPERIENCE UNIT

The following suggested outline may be of assistance in unit planning. Most units follow this general organization. However, the best plan is: (1) to examine a ready-made unit, (2) to plan a unit oneself, and (3) to teach it.

1. *Unit Title*

A comprehensive and significant problem, topic or project, preferably related to a life situation

2. *Preliminary Teacher Planning*

- a. How did the problem or topic originate?
- b. How will the unit be introduced?
- c. How will the purposes and concerns of students be enlisted? What cooperative teacher-pupil planning will be used?
- d. What central life objectives and contributing objectives should be used?

3. *Orientation*

- a. What considerations and appropriate facts should be presented in an overview?
- b. What techniques will be used in providing motivation and orientation? (field trips, library work, visual aids, etc.)
- c. What kind of work plan should the class set up?

4. *Learning Period*

- a. What committees will be set up?
- b. What individual or group learning activities will be undertaken?
- c. What community contacts nearby and afar will be utilized?

5. *Culminating Activity*

What forms will this "fixing" activity assume? (Individual or group reports, dramatizations, demonstrations, models, graphs, exhibits, charts, debates, panel discussions, mock trials, etc.)

6. *Evaluation*

- a. What evaluative criteria will be used?
- b. Did students develop the mastery inherent in the central objective?
- c. Were desirable behaviors of social competence enhanced?
- d. Was achievement worth while from the standpoint of knowledge?
- e. How much time was used?

7. *Bibliography*

EVALUATING A UNIT OF LEARNING

CHECK LIST FOR A TEACHER'S PLAN

Objectives

A. The Central Objective

1. There is a well-defined, clearly stated central behavioral objective
2. It represents a real need of the learner
3. It is properly placed with respect to
 - a. The experience of the learner
 - b. The course as a whole
4. For the unit of adaptation
 - a. It is pupil-centered not subject-matter-centered
 - b. It is stated as an adaptation to a real life situation
 - c. It is stated as an objective to be attained by the learner and not as the purpose of the teacher; not as the activity of teacher or learner

B. Contributory Objectives

1. There are well-defined, clearly stated contributory objectives
2. They each contribute to the central objective
3. They are each necessary for the attainment of the central objective
4. There is provision for differences in levels of attainment of the objectives for different types of learners

C. Indirect or Incidental Objectives

1. They are significant
2. They are attainable

Preparation and Overview

- A. There is definite provision, by pretest or otherwise, for finding
 1. Whether the learner has the necessary prerequisites (abilities, understandings, etc.) for beginning the unit
 2. Whether he has already attained the central objective
 3. Whether he has already attained any or all of the contributory objectives
- B. There is a clearly defined plan by which the learner
 1. Is assisted to understand the central objective
 2. Is led to accept this objective as his own
 3. Understands the relation between central and contributory objectives

The Learning Activities and Experiences

- A. The learning activities and experiences are selected with primary reference to the attainment of the central objective through the contributory objectives

- B. They are formulated in such a way as to help the learner to keep continually in view the central objective as a whole
- C. They are sufficiently flexible
 - 1. To provide for alternative ways of attaining the objectives
 - 2. To make possible the utilization of leads and interests that may develop during the learning
 - 3. To provide for differences in levels of attainment

Testing and Evaluation

- A. There are suitable means provided at proper places in the learning process for determining the degree to which the learner has attained the contributory objectives set up
- B. There are definite means of evaluating the degree of attainment of the central objective
- C. They provide opportunities for self-testing by the learner

Activities of the Teacher

There are well-developed plans for assistance by the teacher in the developing stages of the learning process:

- A. Reference material, working space, and apparatus, etc.
- B. Motivation as may be necessary
- C. Special help to individuals needing it
- D. Stimulation and opportunity for cooperation by the learner in various stages of the unit in
 - 1. Selection of objectives and learning activities
 - 2. Formulation and operation of suitable testing devices

A Teacher-Pupil Check List

It is usually advisable for the teacher and pupils early in the term to develop and establish guides for planning and continuously evaluating topical and life-problem units. The following will be suggestive:

- 1. Is our unit of work worth while? Is it meaningful because of intrinsic values?
- 2. Do we clearly understand what we shall do? Do we have a good work plan, committees, projects, etc.?
- 3. Do we know where to go for information and materials?
- 4. Does the material which we are using help us with the unit of work we have in hand? Do we need more material—maps, globes, charts, visual aids, specimens, etc.?
- 5. Are we distinguishing carefully between what is and what is not important?
- 6. Have we gathered our information from every possible source: from observation, by asking people (at home, in the local district, at school, elsewhere), by reading, by class trips, by speakers, by committee work, etc.?

7. Have we organized our information and displayed concrete materials (specimens, pictures, sketches, maps, charts, and graphs) so that they clearly and definitely present the necessary ideas?
8. Can we think of any other ways of doing this work?
9. Have we discussed the work carefully enough before drawing conclusions?
10. Have we summarized the facts, relationships, and generalizations pertaining to the unit of work?
11. How has the solution of this problem helped us to be better able to solve similar problems as they may arise? Have we worked well as a class, in committees, as individuals?
12. Have we mastered the subject matter which is involved?
13. What need is there for direct teaching, drill, and further teaching?
14. What opportunity is there for us to do something about what we have learned in this unit?

USING A PROBLEM-SOLVING METHOD

The problems approach has been used in the development of units in this bulletin in grades seven to twelve inclusive. The content for each grade has been so organized as to require or imply the use of the problem method. The problems approach to geography studies provides teachers with a flexible teaching procedure which can be used effectively as a point of departure and for elaboration of the meaning of democracy and for action based on fact-finding and generalization.

Learning itself is essentially problem-solving. The problems approach is the application of the thinking process or the scientific method to a class procedure. Teachers have found that when problems are utilized they not only furnish intrinsic motivation for vital study, but they bring into lively and personal focus principles in geography which might otherwise remain to the student mere abstractions concerning the world.

Local situations will help teachers to decide what problems are important enough to incorporate into their program. The teacher might begin with the problem he believes to be of greatest concern to his pupils. Or another point of departure would be to draw students into the project by ascertaining what they think important in the area. A planned survey would yield many problems of concern to them. Pupils can be helped to recognize certain problems as of immediate concern to them through (1) class trips, (2) visual aids, (3) guidance, (4) discussion, (5) dramatic incident, and (6) capitalizing on the significance of current events.

Any problem for changing the behavior of the learner inheres in his dynamic acceptance of a meaningful challenge and his self-identification with the problem. In selecting problems the following criteria might be used:

1. Does the problem help to meet effectively one or more of the ten basic needs of youth?
2. Is the problem worth solving from the standpoint of the pupil's past experience and its future usefulness to the pupil?
3. Does the problem make use of such drives as concern over physical changes, concern over economic independence, and concern over marriage and family life, which motivate a large part of adolescent behavior?
4. Is the problem significant and timely?
5. Does the problem require the use of those tools of geographic technique and knowledge which the student is capable of using at that time and in the use of which he should have practice?
6. Will the problem develop the functional information, understandings, attitudes, and behaviors which show open-mindedness and realization of mutual helpfulness and interdependence of people?

The problem approach permits all activities to be directed to the solution of a common problem. It makes provision for the study of subproblems or topics by individual members of the class or by committees. While the work of each individual and committee is related to the central problem, the pupils are permitted to work on phases of the problem in which they have unique abilities and interests. They plan and organize their study and procedure according to their personal and group needs. This subgrouping provides for individual differences.

The importance of content material was clearly recognized by the teachers and pupils in developing the units presented in this bulletin. This method of selecting the content used is inherent in the problems approach. The content actually selected for the units was considered by the teacher and pupils to be necessary for an adequate solution of the problem under consideration. The process of selecting content began with the initial effort to discover the problems and concerns of the class and continued as the problems selected were studied. By this process the content introduced was looked upon by the pupils not as something to be learned in an abstract external sense, but as something immediately useful to them.

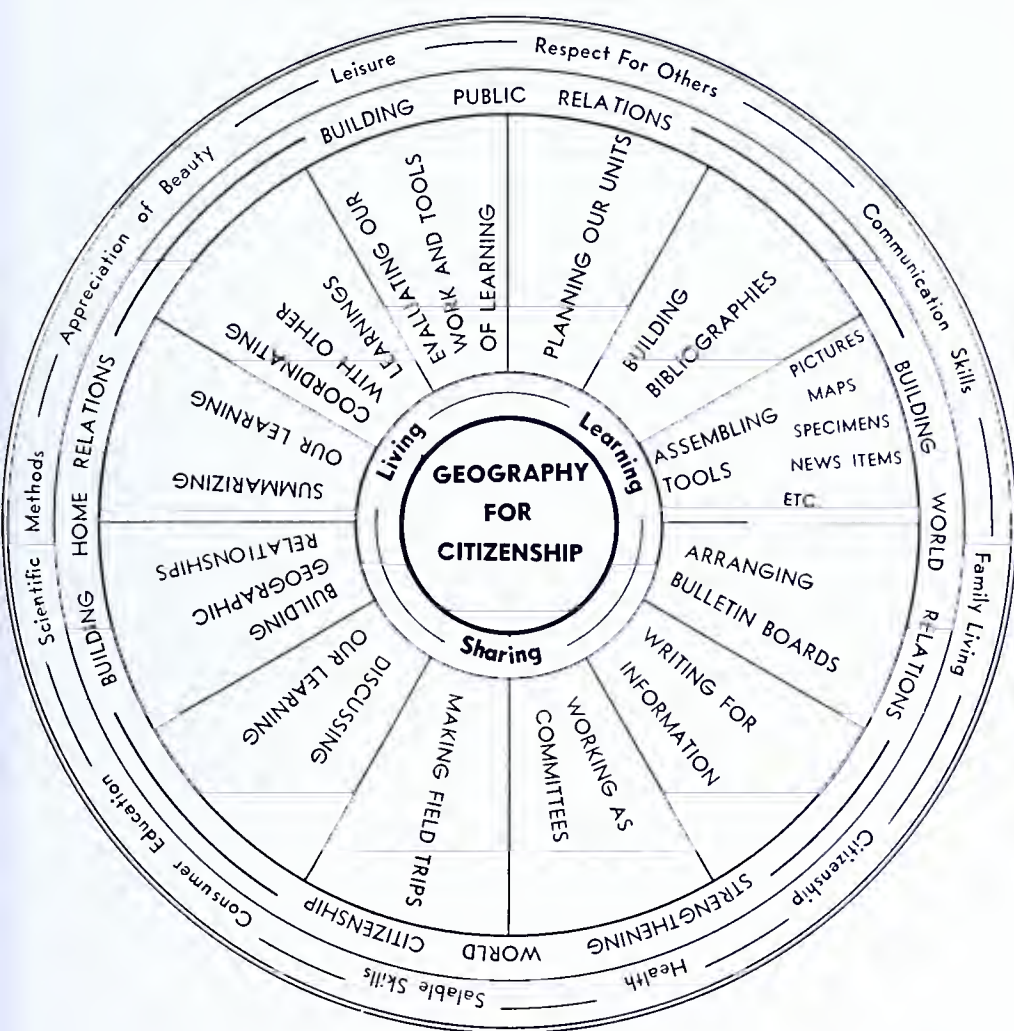
TEACHING PUPILS HOW TO STUDY GEOGRAPHY

HOW TO STUDY GEOGRAPHY

It is the responsibility of every geography teacher to teach his pupils how to study geography. The following suggestions are made for this purpose:

1. *Vocabulary*

To read geography understandingly requires a broad meaningful vocabulary—technical, semitechnical, and general. The student of



A GUIDE WHEEL FOR PRESENT-DAY EDUCATION

geography must be familiar with a broad range of technical words, such as proper names of places, names of products and resources, words pertaining to land and water features, words applying to transportation, to distance and direction, to occupations, to physical phenomena including climate and weather, and to time, months, and seasons, also words descriptive of terrestrial phenomena or features, and abbreviations of any of the above.

The student of geography must have familiarity with mathematical terms. For example, he needs to be familiar with such terms as *area*, *average*, *graph*, *degree*, *rate*, *scale*, and also geometric terms, statistical concepts, and terms used in finance and business.

2. *Pictorial Presentation*

The student cannot study geography efficiently without adeptness in map reading. Maps are devices for the visualization of a large part of the information we acquire regarding the earth and life upon it. The student must be able to visualize what each map symbol means; that is, he must translate lines, shadings, signs, characters, colors, and dots into landscape imagery; isotherms, isobars, and isophytes into patterns of natural and cultural items; meridians, parallels, and other lines into ideas of location, distance, direction; and finally legends and key symbols into useful tools for interpretation.

Although it may be relatively simple to get descriptive ideas of location, distance, extent, elevation, and the like from maps, it is another matter to see relationships between these ideas and arrive at interpretive ideas; for example, the relationship of railway and highway patterns to topographic features, and of crop distribution to precipitation, elevation, and contours. *The difficulty of interpreting a map depends partly on its complexity, that is, upon the number of items presented.* The number of words in a given space, the difficulty of the words whose meaning is necessary to interpret the map, the kind of projection used, and the ability of students to see relationships, are factors in map interpretation.

Attempts to grade map-reading and globe-reading experiences so that necessary skills may be developed at the grade level where they are best fitted and where the information is needed, have helped to reduce the difficulties of map reading at all levels.

Graphs offer similar problems. Geography students are called upon to read a large number of graphs, chiefly showing areas, products, climatic conditions, populations, imports, exports, or growth of industries, machines, railroads, trades. The graphs vary in complexity from simple bar, circle, and line graphs for the seventh grade to statistical graphs, function graphs, and trend lines for the twelfth grade. If insufficient provision is being made in mathematics for the kind of graph reading required in geography, the geography teacher must give the student additional training in interpreting such data.

3. *Wide Reading*

Students in geography should be encouraged to read beyond the textbook for added interest, for a broad background of scientific and social understanding, and for experiences in living that can be translated into personal attitudes and social actions.

USING COMMUNITY RESOURCES

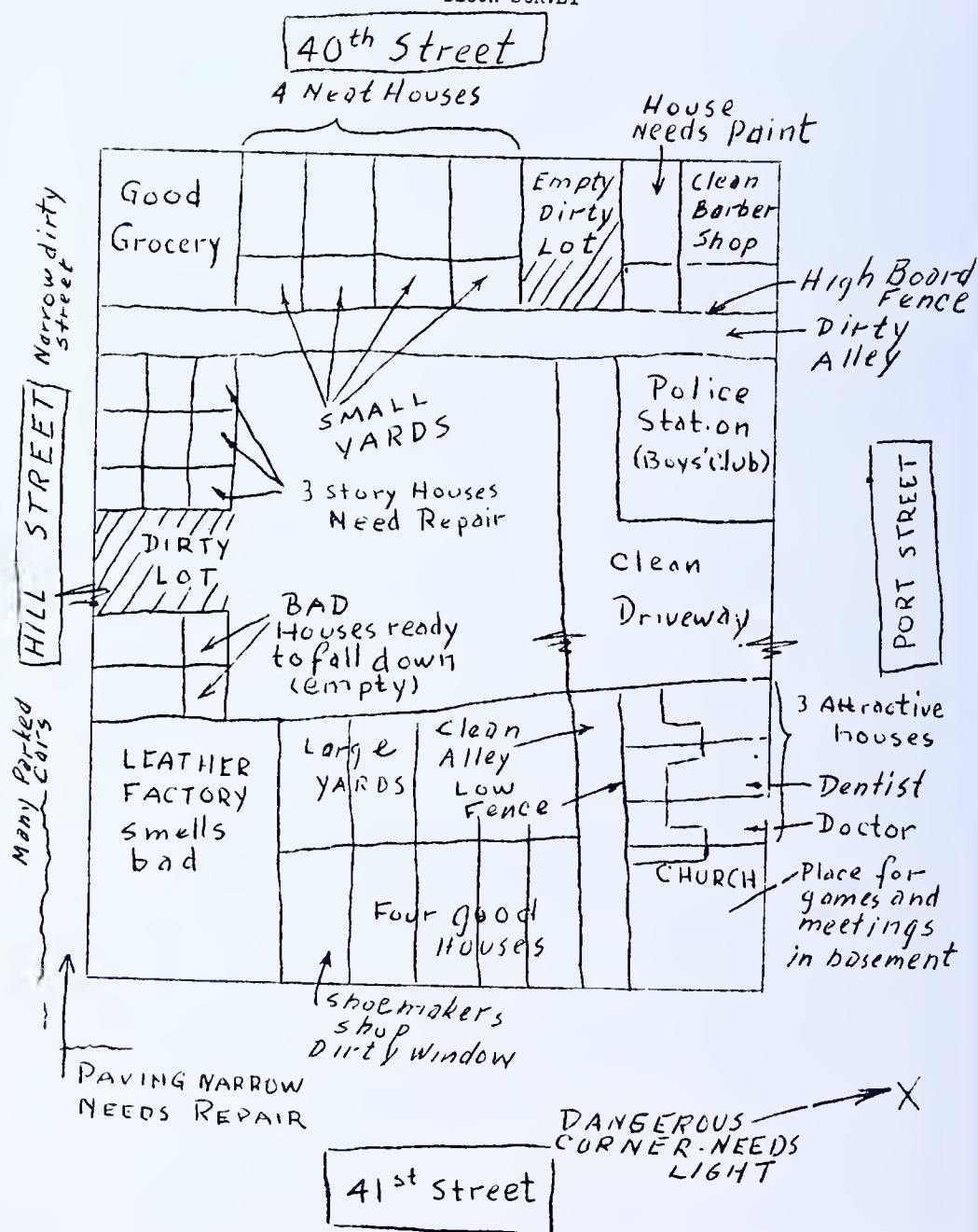
The outdoors is the laboratory of the geographer. Some schools may be equipped with visual aids, large libraries, and modern texts, while others may have access to none of these. But all schools have one free instructional aid in common—the community. Firsthand observation in the immediate community is an indispensable teaching aid. The individual can view a topographic feature as it actually exists, experience daily weather changes, study a transportation problem, realize the interdependence of peoples, and in every respect really learn by guided living.

A story is told of a teacher who was having great difficulty explaining the term *erosion* to her class. She was using a great many words and some rather inferior blackboard illustrations, apparently unaware that the school's playground was an excellent example of erosion. Had the teacher taken the class outdoors to the playground, she would have saved time, words, and energy. She could have said, "There is erosion. What is it?" The class would then have told her what erosion meant, discovered the causes, and, no doubt, suggested the remedies. A truly worth-while project might have resulted from firsthand observation, and the members of that class would have gained an understanding of the word erosion which would have carried over into adult life.

It is true that these school-age youth have been working with the community since they entered kindergarten. In the primary grades their problems of study centered around the home, the school, the immediate neighborhood, and the nearby city or farm. Then in the intermediate grades the idea of what constitutes the youth's community was enlarged to include all his neighbors in the Americas. At the secondary level he should see all the people of the world as his near neighbors and as members of his larger community. Landscapes at home are now compared and contrasted with far-off scenes. The problems of the larger communities of peoples are viewed in relation to similar problems in the home community. The individual sees the ties between his local community and his larger community. His interpretive insights are deepened; his interests broadened. Each feature of his home area takes on new meaning as he realizes its relation to the greater community.

Use of community resources improves the relationship between school and community. School youth, as they become better acquainted with their home area, take greater pride in the community and are better citizens of the community during their school life. A lasting interest in community problems is aroused. Business, political, and social leaders of the community become aware of the school's use of local resources.

BLOCK SURVEY



This knowledge leads them to take greater pride in the schools, makes them more anxious to cooperate with and support the schools, and revitalizes their interest in community betterment programs. Improving citizenship of teen-age youth and adults is one of the major obligations of the public schools.

Use of community resources contributes directly to the other basic needs of youth. Those who will remain in the community after graduation will have had the chance to acquaint themselves with the work opportunities of the local district and with the requirements which will fit them for that work. As an individual sees his neighbors at work and at play, his respect for them will grow. There will be opportunities to develop consumer judgment. Health problems of the area will be brought into focus. The importance of family relationships will be emphasized. New ways of spending leisure will be discovered. A thorough knowledge of community life fosters an appreciation for and a desire to improve the cultural aspects. Investigations can develop scientific attitudes. There are innumerable opportunities for an individual to improve his language abilities.

Can a rural area with a widely scattered population provide learning opportunities which compare favorably with those in large cities? *The alert teacher finds in any community, regardless of its size or population, many examples in the local landscape to use in instruction.* There are topographic features to be used for contrasts and comparisons. There are climatic data to be gathered and compiled. There are soils and vegetation cover to be studied. There is a man-made environment to be explored.

The alert teacher uses the local landscape as an aid in map and picture reading. He constantly uses the local population: what they do, what they think, their likes and dislikes, and their culture—as examples, as comparisons, and as contrasts. He knows the social organizations of the community, shows how their work is related to the problem under discussion, interests the group in such organizations, and calls upon those organizations for help in the classroom. He helps his students contact resource speakers and arrange interviews. He interests his students in correspondence as a technique for interviewing persons in the larger community. A community may be limited in size, in population density, in diversity of resources, but the alert teacher finds few limitations in the use which can be made of the environment.

Careful, purposeful planning must precede the excursion, interview, or other contacts with the nearby or distant community. Definite, concise discussion should follow the experience.

EMPHASIZING VOCATIONAL OPPORTUNITIES IN GEOGRAPHY

One of the best types of motivation is that of a life career. Geography teachers should be alert to point out to youth the vocational opportunities which lie in the field.

There are in the United States today between 1,500 and 1,800 professional geographers. This number is rapidly increasing. *However, there are many more positions available than trained geographers to fill them.* The geographic profession has made rapid strides during the past decade, so that government, business, and industry have become familiar with and recognize the usefulness of its methods, applications, and results.

The number of U. S. Civil Service positions especially in geography has been greatly expanded. Geographers are now employed in the Departments of State, War, Navy, Agriculture, Interior, and Commerce, in such positions as regional geographers, cartographers, research analysts, librarians, political geographers, economic geographers, conservationists, land planners, mineral geographers, and climatologists.

In the above positions, the geographer performs the following types of work: prepares studies and research relating to industrial and commercial geography, soils, soil erosion and land utilization, mapping, regional climatology, vegetation distribution, and allied fields; performs related cartographic work, including the compilation and the analyzing of geographic data; prepares reports on the geography (physical, economic, social, and political) of specified areas, and the establishment and use of map collections.

Instruction in geography in the public schools and colleges still employs the largest number of geographers. There now exists, and will continue to exist for a number of years, a shortage of well-trained teachers in the field. Many senior high schools and colleges are introducing geography courses and curriculums, and consequently teachers are in great demand.

Positions in the business, commercial, and industrial world are becoming available in increasing numbers. Air lines, railroads, heavy and light industries, food processing establishments, book and magazine companies, and foreign trading companies are now employing geographers.

SELECTED TYPES OF POSITIONS

1. *Teaching*

Teaching employs more geographers than any other branch of the profession. Geography teachers are needed at the elementary, high school, college and university levels. Normally a geographer with a bachelor's degree can secure a position at the elementary or high school level. Colleges or universities require as a minimum standard the master's degree for an instructorship, and advancement will depend frequently on securing the doctor's degree. While salaries are relatively low in the teaching profession, there are many rewards and personal satisfactions. In order to be a successful teacher, the individual must know his subject matter, be a leader in working with students, understand human nature, and be responsible.

Since the world is made up of regions and each region has its own individuality, one of the most significant jobs of the geography teacher is to direct pupils toward understanding how the people of each region are using their natural resources and coping with the problems of their environment. The teacher must guide students in learning that regions are not suspended in space; and that there is a relationship of one region to another and to the whole.

Geography is a dynamic subject, and a good teacher will make it a living, changing science. It is the responsibility of a good teacher to help pupils discover regional relationships and changes in the world as they explore the areas of the earth.

2. *Research and Development Geographer*

There are numerous positions where the physical, human, or regional geographer can work in his particular field on research and development problems. Most of the professional geographers in government are in essentially research positions.

The many varied types of research may be illustrated by several selected examples. The application of geographic techniques and research has become a vital part of the work of the Quartermaster General of the Armed Forces. Under the title of environmental research, the geographer is applying his knowledge in solving all types of Quartermaster problems. For example, one of the recent problems has dealt with research on using clothing and equipment under Arctic conditions.

For maintaining an army in the Arctic many environmental factors must be considered. Research in the field of such problems includes the preparation of maps and reports on topography, slope, wet surface and drainage, underground water, climatic factors of temperature, precipitation, snow cover, amount of light and wind

movement, frozen ground surface, surface materials, and cultural factors. These maps provide a scientific basis for the Quartermaster to issue clothing and equipment. For example, if a given area in the Arctic has no snow covering in the winter, the Quartermaster will not issue snowshoes and skis. To know this fact will save possibly millions of dollars in equipment and transportation costs.

As another example, one of the great problems in the Arctic is to find dry land, particularly in summer, for camping sites, supply stations, and general movement of troops. The geographer by his knowledge of slope, drainage, and temperature conditions can prepare a mud map which is of tremendous value to the armed forces.

The geographer bases his findings on primary source materials, such as topographic maps, aerial photographs, and field study. This type of project presents an opportunity for geographers to perform basic research which will be applied directly in solving critical problems of national defense.

Within the past few years, many other research groups in government departments and bureaus have been created for the purpose of establishing geographical research as a guide for our domestic and international policy. It should be emphasized that geographic research and development are not limited to governmental agencies.

Industry and business are also using geographic techniques in their development programs. The geographer by wide training in the physical and human sciences has demonstrated that his attack on many problems is sound. Thus the geographer through his methods of attack has been in demand in recent years in solving research and development problems in government, business, and industry.

3. *The Geographer in Business*

Geographers have entered the business field in increasing numbers, largely since 1940. By their work they have proved that the professional geographer has a place in the business world. This is a new field, and many opportunities are developing. The techniques of geographic analysis and synthesis are now used in many branches of business.

The geographer has many contributions to make to the business world. Every large business firm is confronted with the problem of ascertaining where its goods or services can be sold at a profit. The geographer by his training is ideally suited to select and evaluate locations for retail outlets, analyze market areas, analyze the capacity of a region to produce and consume, suggest possible development programs, delineate sales territories, appraise the potential of old and new markets, study trends and geographic shifts of population, industry, wholesale and retail distribution.

The geographer can also devise expert methods of presenting market data in cartographic form.

The types of enterprise which might be expected to recognize the value of such services would include: (1) banking and finance—particularly large organizations with widespread investments in bonds of governmental units and industries—both domestic and foreign, (2) marketing organizations or market research branches of industrial firms, (3) transportation agencies—air, rail, water, and truck, (4) commercial cartography, (5) the re-creation of industry, (6) chambers of commerce, and (7) publishing concerns.

4. *Geographic Work in a State Planning Commission*

The state planning commissions are particularly interested in problems dealing with population, agriculture, industry, business, land use, recreation, purchasing power, and financial resources.

To illustrate the place of a geographer on a planning commission a problem concerning industrial location has been chosen. The following is an actual outstanding example of applying geographic technique in helping an industry find a location in Tennessee. A group of industrial leaders requested aid in choosing a site with the following requirements:

- a. The site should consist of from 500 to 2,000 acres of land.
- b. The site must be adjacent to a water source capable of supplying 25,000,000 gallons of water daily, free from organic color.
- c. The site should be sufficiently level to build a main building of 60 acres of continuous floor.
- d. The site should offer good foundation conditions but not include bedrock.
- e. The elevation above the source of water was of critical importance for, on the one hand, an outfall sewer from the bottom of the basement should stand above a fifty-year flood hazard; yet the site should be as low as possible in order to avoid unnecessary costly pumping of the 25,000,000 gallons of water required each day.
- f. The site should be near a railroad and a heavy-duty highway.
- g. The site should be located with reference to an available labor supply of 2,500.

It was now the problem of the geographer to find a site that would fit the above requirements. For this particular location some of the requirements could easily be met, but to find a site to meet all the needs had baffled the company's engineers and administrators, personnel, and the consulting engineers to whose attention the problem had been called. One of the most difficult of the physical requirements was to find a site with good foundation conditions, but without bedrock, and standing above the highest flood stage.

In eastern Tennessee this could mean only old river terraces. These have a distinct and recognizable appearance from the air and therefore show up easily on aerial photographs. Railways, highways, and towns also appear on these photographs, and a complete set of aerial mosaics at a scale of one inch to one mile was quickly consulted. References were also made to published statistical material indicating the character of water in the various streams, so as to eliminate those streams which were of insufficient flow or had too high a concentration of organic color. It was then possible from the photographs to spot several sites that would be suitable, so that they could be visited in the field for closer observation. The company selected one of the sites and is now constructing a \$20,000,000 plant. This is an illustration of how a geographer can apply his knowledge of terrain, water supply, and population to solving industrial problems.¹

CORRELATING GEOGRAPHY WITH OTHER SUBJECTS

Unless teachers can relate learnings in the various subject areas to each other, how can the student be expected to do so? This essential cooperation is stressed in good faculty planning.

I. *The Correlation of English with Geography*

Every geography lesson provides opportunity for the exercise of correct speech and good English habits. The geography period affords an opportunity for increasing the vocabulary, developing sentence sense, talking and writing, and other pertinent phases of English.

A. Oral Work

- | | |
|---|--|
| 1. Oral reports on research | 6. Oral reports on committee work and the like |
| 2. Critical discussion | 7. Dramatization |
| 3. Class programs | 8. Marionette shows |
| 4. Exhibits | 9. Shadow plays |
| 5. Debates, forum and panel discussions | |

B. Written Work

- | | |
|--|--|
| 1. Term papers | 5. Friendly and business letters, written to secure materials for unit, inviting guests to see a play or exhibit, etc. |
| 2. Essays | |
| 3. Evaluations | |
| 4. Descriptions and explanations in connection with maps, charts, pictures, etc. | 6. News columns for school paper |

¹ E. Willard Miller, Chief, Division of Geography, The Pennsylvania State College, *Careers in Geography*, Institute for Research, Chicago, Ill.

7. Radio script
8. Creative and imaginative writing in poetry or prose may arise from interest in scenes of countries, stirring events, types of work, etc.

C. Literature

The units in geography open up alluring avenues of literary experience into which the teacher may direct the students for the better accomplishment of reading skills and for the enrichment of the geography content involved. Extensive reading programs may arise from the geography content, the pupils using materials from school, home, public libraries, and other agencies, and reporting their findings in the English or geography class. Literary appreciation may more readily be developed when there is geographic background for it.

II. *Desirable Mathematics Knowledge for Pupils in Geography*

A workable knowledge of mathematics is needed and desirable for an understanding of geography. Mathematics is needed for a better understanding of the following problems:

1. Practical uses of weights and measures of various kinds
 - a. Short and long ton
 - b. Cords of wood
 - c. Gallons
 - d. Bushels
 - e. Barrels of various materials
 - f. Bales by volume and bales by weight
 - g. Metric system
 - h. Horsepower
 - i. Per capita
 - j. Per square mile
2. When dealing with the globe—angles, degrees, circumference, diameter, proportion, fractions, percentage, map scales, great circle, latitude and longitude, meridians and parallels
3. Interpretation of time belts and time at various parts of the earth
4. A study of weather and climate includes problems dealing with
 - a. Changing of Fahrenheit to centigrade
 - b. Isobars and isotherms
 - c. Relation of pressure in inches to pressure in millibars
 - d. Relation of wind velocity to pressure gradient
 - e. Relative humidity expressed in the form of a ratio, fraction, or percentage

- f. Weight and pressure
 - g. Calibration of thermometers and altimeters
 - h. Distribution of gases at different altitudes
 - i. Temperature inversions and lapse rates
 - j. Mathematical representation of climatic data
5. Population per square mile when area and population are given
 6. Various uses of graphical representation, such as vertical and horizontal bar graphs, line graphs, dot graphs, circle graphs, and percentage graphs. Not only an understanding of graphical representation but also practice in calculating production of various articles and products, and construction of accurate graphs to show what has been found or produced
 7. Problems dealing with the movements of the earth, moon, and planets in space, and the various changes which occur because of the inclination of the earth's axis
 8. Problems dealing with the duration of daylight, an understanding of which could include a workable knowledge of algebra and plane geometry
 9. Problems dealing with minutes and seconds when studying latitude and longitude, and longitude and time
 10. For a working knowledge of the earth's grid some parts of spherical geometry and trigonometry are needed—especially in the construction and interpretation of various map projections

The above problems will serve to show that there is a definite relation between geography and mathematics. With modern applications of geography to global thinking, this has become more evident.

The relation of mathematics to geography needs to be taught; it may also serve to motivate the study of both subjects.

III. *Cooperation Between Geography and Modern Languages*

1. Poster Work

Put into posters foreign words, slogans, or even sentences under appropriate drawings or symbols. In some cases the terms on the poster may be translated. Both the person reading the poster and the one making it learn the new terms quite effectively.

2. Variety of Placards or Projects

Illustrated foreign publications, travel folders, and magazines can be used in the geography and language departments. Translate legends and captions of pictures.

3. Assignments in Foreign Atlases, Almanacs, and Yearbooks

- a. Make graph of the kilometers of inland waterways of various countries.

- b. Learn geographic information and the foreign language at the same time.

4. Word Derivations

In sections of the United States the place names are foreign. Study origin of these words. The explanation affords a splendid opportunity for cooperation.

5. Incidental Insertion of Foreign Terms into the Recitation

Boden, trans, chien, etc., have meaning in foreign languages. Occasionally there are trade names which can be explained.

6. Extracurricular Cooperation

- a. Geography clubs and foreign language clubs can meet jointly for some topics interesting to both.
- b. Cooperate in putting on folk dances, costuming, etc.
- c. Foreign language plays with proper setting will benefit both geography and foreign language classes.
- d. Assembly programs on France, Germany, Spain, Italy, and other European countries will be interesting and instructive.

There are many examples of cooperation between geography and other subject departments. The opportunity for cooperation is great between departments which seem to have little relationship with one another.

IV. *Correlation of Other Subjects with Geography*

Correlation is a two-way street. Geography learnings require substantial understandings and appreciations of the specific *nature* items—features, activities, and conditions in each of the various significant regions of the earth and in the world geographic patterns. Too frequently teachers of many subjects concern themselves primarily with details of the *culture* patterns and neglect geographic considerations. In those cases, *climate, Ural Mountains, Missouri River, native vegetation*, and similar terms are chiefly verbalisms, mere words, not meaningful concepts.

Only when the learner has meaningful concepts and feelings towards each nature item in a region can the statement of interrelations between given *culture* items and related *nature* items register any satisfaction and significance in the life of the learner.

Geography and history are mutually helpful. Likewise art, music, safety education, health, and other fields of learning may be correlated with geography, to the mutual improvement of instruction in each of the subjects. The teacher who is sensitive to the optimum use of possibilities for correlation of geography with other subject fields will find a considerable number of suggestions in the units of work presented in this course of study.

V. *Correlation of School Work about a Central Theme*

At times an entire school faculty may desire to focus its work upon some universal and critical social need. Such a need exists in the problems of home and family living.

Nearly all people live in families. The strength of a nation depends upon the quality of its family living. The tensions of modern living present great threats to the quality of family life. The frequency of divorce, the lack of democratic home relations, the poor use of finances, and other areas of tension focus upon the need for an adequate type of education in this field. The following resource unit is for cooperative action by several school departments. It has been developed by a committee on Family Life Education (See Acknowledgments in the Appendix).

In this geography bulletin, because of space limitations, only the material of the unit which pertains to geography is included. Other appropriate sections are included in the courses of study in English, social studies, science, mathematics, and modern foreign languages. It is desired that the various school departments discuss the unit in faculty meetings. By simultaneous cooperative action of all subject teachers at a single grade level, there can be a coordinated plan to provide pupils with effective learning experiences in the unit for a given period of time.

NOTES

EDUCATION FOR FAMILY LIFE: A RESOURCE UNIT

General Objective: To strengthen and improve family living

Specific Goals for Total School

To help boys and girls to:

1. Understand themselves and how their behavior affects others
2. Recognize the needs and desires of others in the family group
3. Appreciate the value of good mental and physical health for personal happiness and wholesome family living
4. Understand the place and importance of children in the home
5. Gain an appreciation of the human and spiritual values in family living
6. Respect the contribution people of other cultures and races make to home and community living
7. Understand the need for cooperatively planned management in every home
8. Appreciate the need for beauty in the home
9. Recognize the responsibilities families have toward the community
10. Appreciate the responsibilities involved in parenthood and homemaking
11. Recognize factors which influence our standards for the selection of a life partner
12. Understand the home as a social institution and as a basic unit of democracy
13. Understand the value of the scientific approach to the solution of family problems
14. Develop ability to perform homemaking activities

FAMILY LIFE EDUCATION IN THE TOTAL SCHOOL PROGRAM

Philosophy

What do we mean by Family Life Education?

Family Life Education is the total program within a school directed toward improving family living. It is the sum total of all concepts, attitudes, and skills gained in home and family living through a coordinated, well-planned program. Although courses in Family Relationships and Sex Education are sometimes called Family Life Education, the term Family Life Education is generally conceded to be broader in scope than any one course.

Who is responsible?

Everyone concerned with the growth and development of youth today will have a part in this program. To coordinate such a program in a school will mean the setting up of a working committee representing every subject matter area in addition to the school dietitian, nurse, guidance counselor, parents, and young people. The homemaking teacher because of her unique background will be a valuable member if not the leader of this committee.

All courses offered in Homemaking,¹ i.e., the family's food, clothing for the family, child care and development, home management, home nursing, personal and social relations, will naturally be a fundamental and major part of this program in Family Life Education. To function constructively in the everyday living of boys and girls these courses must be family-centered. Music and art too have much to contribute to happy family living. Health and physical education will have a vital place in such a program. If the subject matter areas of English, science, mathematics, geography, modern foreign languages, social studies are to meet the needs and concerns of youth today, they too must relate their discussions, readings, etc., to the family and the community of which the family is a part. Thus, every member of the school staff must recognize the part he or she has in developing improved attitudes toward the home. Every teacher has a contribution to make to family living by helping boys and girls understand the values of home life and how to become responsible family members.

Education for Family Life as far as the school is concerned should begin with the preschool child and continue through the twelfth grade, for both boys and girls. The *Elementary Course of Study*, Bulletin 233-B, treats the subject under Chapter II, "Providing for Some Aspects of Education that Permeate the Whole Day," specifically, "Building Good Family Relationships through School Activities," p. 61. In order to meet more adequately the needs of the high school senior, a specific course should be offered in family relationships, giving emphasis to preparation for marriage. Many high schools are providing such courses under various titles, such as: Personal Living; Family Relationships; Senior Problems; Problems of Modern Living. This course can be taught by the teacher of homemaking or other qualified member of the faculty. Such a person should be mature, well adjusted, skilled in human relations, willing to listen to young people.

¹ Bulletin No. 325: *A Suggested Program in Homemaking for Secondary Schools*, Department of Public Instruction, Harrisburg.

SOME SUGGESTIONS FOR INTEGRATING FAMILY LIVING WITH GEOGRAPHY

NOTE: In this report no attempt has been made to indicate the scope of subject matter in Family Life Education. Typical items have been selected to serve as illustrations.

<i>Specific Goals</i>	<i>Content</i>	<i>Experiences</i>	<i>Teaching Aids</i>
To recognize the responsibilities families have toward the community	<p>Effect of conservation on standard of living in the home</p> <p>Examples:</p> <p>Soil conservation</p> <p>Man is directly dependent upon soil for food</p> <p>Crop rotation and fertilization increase food production</p> <p>Forest conservation</p> <p>Safeguard lumber for homes and their equipment</p> <p>Lack of conservation and its effect on families in dust bowl area</p> <p>Water conservation</p> <p>Importance of adequate and pure supply for family health and safety</p> <p>Ways to conserve water in the home</p>	<p>List the principal foods produced in your locality</p> <p>Make a field trip to a nearby wholesale food market</p> <p>Observe the use of land in the community</p> <p>Report on group migrations—their effect on communities</p> <p>Discuss what your town or city does to insure a safe water supply for its homes</p>	<p>Chamberlain, <i>Geography and Society</i>, J. B. Lippincott Company, 1938</p> <p>Wilson, Wilson, Erb, <i>Richer Ways of Living</i>, American Book Company, 1938</p> <p>Material from National Safety Council, 20 N. Wacker Drive, Chicago 6, Ill.</p> <p>Housing booklets—Sloan Project in Applied Economics, 317 Yonge Bldg., University of Florida, Gainesville</p>
	<p>Fire prevention</p> <p>Effect of climatic conditions on the pattern of family life</p> <p>Houses designed to meet climatic conditions</p> <p>Clothing adapted to meet such needs</p> <p>Food sources</p> <p>Methods of transportation</p>	<p>Analyze and correct fire hazards at home</p> <p>Report on modes of family living in different climates, especially in the United States</p>	
To respect the contribution people of other cultures and races make to home and community living			

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- California Journal of Secondary Education* (January, 1950), 170 S. Van Ness Ave., San Francisco 3, Calif.
- National Ass'n. Secondary-School Principals, 1201 Sixteenth St., NW, Washington 6, D. C.,
- "How Well Does Your High School Rate on the Imperative Needs of Youth?"—\$20.
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- Groves-Skinner-Swenson: *The Family and Its Relationships*. J. B. Lippincott Company, 1948.
- Landis: *Your Marriage and Family Living*. McGraw-Hill Book Company, Inc., 1946.
- Sources from Which Free and Inexpensive Material Can Be Secured*
- American Institute of Family Relations—5287 Sunset Boulevard, Los Angeles, Calif.
- American Social Hygiene Association—1790 Broadway, New York 19, N. Y.
- Association for Family Living—28 E. Jackson St., Chicago 4, Ill.
- Child Study Association—221 W. 57th St., New York, N. Y.
- Federal Security Agency, Public Health Service, Washington 25, D. C.
- National Council on Family Relations—1126 E. 59th Street, Chicago 37, Ill.
- Parents' Magazine*—52 Vanderbilt Avenue, New York, N. Y.
- Public Affairs Committee, Inc.—22 E. 38th Street, New York 16, N. Y.—Booklets—\$.20 per copy.
- Science Research Associates—228 S. Wabash Ave., Chicago 4, Ill.—Life Adjustment Booklets—\$.60 per copy.
- Syracuse University Press—Syracuse, N. Y.—A Bibliography of Family Life Materials.

FILMS (16 mm.—Sound)

Examples of:	Consult film lists from:
Family Life in Other Lands	American Junior Red Cross
	Encyclopaedia Britannica
	The Pennsylvania State College Film Library
	Young America Films
Family Life in the Days of our Forefathers	The Pennsylvania State College Film Library—Rental \$1.50
Colonial Children	
Modern Family Living	New York Commission on Human Relations
Dead-End Children	New York University, 26 Washington Place—Rental \$2.00
	Coronet Films—Rental \$1.50
Consumer Protection	New York University, 26 Washington Place, N. Y.—Rental \$4.00
Family Affair	Coronet Films—Rental \$1.50
Family Life	Association Films, 347 Madison Ave., N. Y.—Rental \$1.50
Make Way for Youth	Association Films, 347 Madison Ave., N. Y.—Rental \$1.50
You and Your Family	Frith Films, 840 Seward St., Hollywood 38, Calif.
Family Teamwork	New York State Dept. of Commerce Film Library, 40 Howard Street, Albany, N. Y.—Rental \$3.00
Families First	

FILMSTRIPS

Happily Ever After	Film Publishers, Inc., 25 Broad Street, N. Y. C.—Cost \$3.00
As Others See You	
Home Ground	
School Spirit	McGraw-Hill Book Company, Inc., 330 W. 42d St., N. Y. C.—Cost
Stepping Out	\$4.50 each
Table Talk	



A COMMITTEE PREPARES A DISPLAY

CHAPTER III

SCOPE AND SEQUENCE

SCOPE AND SEQUENCE IN THE SECONDARY SCHOOLS

The scope and the sequence for grades seven to twelve recognize that

1. There is definite gradation of geographic principles, learning difficulties, and their functional values to the learner. There must be sequential order in geography education. This should consider both subject sequences and the maturing needs of students.
2. Specific geographic principles, experiences, and the learning materials involved vary in their functional values. Careful selection of learning activities and materials is necessary.

3. The principle of adjacency, or proximity, of regions should be applied in setting up a sequence of units.
4. Although some political units are so similar that they may be grouped together for study of basic principles, the learner should acquire definite understandings of each of the countries studied and the applications of these understandings to his own life and community.
5. Regions and problems vary as to their respective social importance.
6. The geographical nomenclature that occurs in phases of day-to-day living must be taught.
7. There should be an emphasis upon the building of initial concepts and the use of those concepts in other fields of knowledge and in other phases of geography and of living.

The teacher is not expected to develop all the problems suggested for any one grade level or in any suggested sequence. The Roman numbers are for reference use. Many problems have been listed to permit selection of those problems which fit the needs of the pupils, the community, and the teacher. Pupils and teachers are encouraged to formulate their own problems. Many examples are included which may be used as planned or adapted to local purposes. The illustrative units are included as received. While their format is similar, variation indicates the individuality and initiative which characterize good teaching.

CONCEPTS OF GEOGRAPHY EDUCATION

The scope and the sequence are based on common and essential needs of youths and on the following *concepts*:

1. *Some people live very much as we do, while other people live in ways very different from ours.*
2. *Different kinds of work are carried on in various areas.*
3. *People live where they do because of geographic conditions.*
4. *Certain characteristics set one country apart from all others or give it individuality.*
5. *People of other areas make contributions to our welfare.*
6. *Lasting peace is closely linked to an understanding of the interdependence of nations and of peoples, individually and collectively.*

See Chart on p. 58.

SUGGESTED SCOPE AND SEQUENCE OF AREAS

SEQUENCE

SCOPE	GRADE VII	GRADE VIII	GRADE IX	GRADE X	GRADE XI	GRADE XII
Citizenship	<i>How can we get along with other people?</i>	<i>How is man influenced by geographic conditions?</i>	<i>How do geographic conditions help make Pennsylvania the Keystone State?</i>	<i>How can we use and conserve our natural and economic resources?</i>	<i>How can we more fully appreciate our country and its neighbors?</i>	<i>How can we contribute to international peace?</i>
Respect for others						
Scientific understandings						
Thinking rationally	Europe and Asia —also Africa, Australia, and Islands of the Pacific if not previously taught	Geography of the United States and World Relations —United States as springboard to study of world	Geography of Pennsylvania— When advisable Pennsylvania may be taught in its relation to the United States and the rest of world	Economic or Commercial Geography	Geography of the Americas, neighbors north and south	World Geography, Strategic Areas — Political, Physical, Economic, and Natural Environmental Problem Regions
Health and physical fitness						Selection may be flexible each year, depending upon current situations and needs
Home and family living						
Salable skills						
Consumer judgment						
Use of leisure						
Appreciation of beauty in literature, art, music, and nature						

SECTION 1

GRADE SEVEN

HOW CAN WE GET ALONG WITH OTHER PEOPLE?

The pupils of the seventh grade are a diverse group. They are entering a new school with a type of organization very different from that of the elementary school which they have just left. The individual is separated from most of his former classmates and must adjust to new acquaintances and many teachers who are total strangers to him. Where the seventh grade is organized on the departmental system and the student changes classes and teachers at the sound of a bell, he may be confused for a period of weeks.

To help the individual make adequate adjustments to the new situation, it will be well to have the first unit center around the theme "Getting Acquainted." A major responsibility of the geography teacher in such a unit would be to orient the class concerning the new building. (See Unit I, page 63.) The class should be taken on short excursions through the school buildings to locate classrooms, shops, gymnasium, auditorium, etc. The pupils can make maps of the building to refer to later. If the school has duplicated maps of the building, the students can be taught to read these maps. By such activity the geography teacher can evaluate the map-reading abilities of the class. This will help him plan the map-reading program for the year. It will be necessary also for the geography teacher to help the new pupils orient the building in relation to the cardinal points of the compass. Students must know cardinal directions for effective map work. A period of one week should be ample for this unit.

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Following this orientation period a discussion of the problem "How Can We Learn to Appreciate Our Neighbors?" (See Unit II, page 66) will give the seventh grade teacher an opportunity to discover the geographic background of the class and enable him to make long-range plans. The students are to have a part in this planning period. After the class, with help and guidance from the teacher, has decided on the first problem for investigation, the students should take an active part in all planning.

The seventh grade teacher, like all other secondary teachers, is not educating youth to be geographers but is guiding youth to be citizens with a geographic background of understanding and appreciation. The basic behavioral needs of youth are major objectives. With this age group, family living and respect for all others should receive great emphasis. There will be opportunities daily to practice behaviors worthy of good citizens, to improve the individual's skill in the use of language

and other expression skills, to teach scientific methods of work and scientific relationships and to encourage good health habits and physical fitness. The activities, which are a part of every unit, should show ways of using leisure constructively and develop appreciation of beauty. Attitudes and resultant behaviors relative to consumer judgment and salable skills should be emphasized and evaluated.

The teacher should remember that he is not only teaching a seventh grade class and a subject; he is also guiding individuals in their personal growth and development and their social group experiences toward life adjustment and social competence. To do this, he must know as much and be as much concerned about the object of his teaching—that is, the pupil—as he is about his subject.

SEQUENCE

In the seventh grade the student is to become acquainted with those peoples overseas and their environments which he has not appropriately studied in previous grades. He should realize more clearly the interdependence among world neighbors. The problems given here recognize: (1) *needs of youth*, (2) *the necessity of emphasizing regional studies*, (3) *the interdependence of people*, and (4) *the geographic analyses of current events*. When selecting problems from this list or formulating original titles, the teacher should remember: (1) *that the needs of his students must be met*, (2) *that geography is the study of regions and geographic principles*, (3) *that gradation of learnings within the grade is important*, and (4) *that all learning should be evolved from and with youth's point of view and be meaningful to youth*.

The following unit titles are merely suggestive. It would not be possible for every class to consider all the problems listed. Together with their teacher, some students will set up other problems. Units to show such planning in actual use in Pennsylvania's schools are presented. Some of these problems will serve better as approaches in learning details, others as clinchings of principles and understandings:

SUGGESTED UNIT TITLES

1. What problems of getting along with others in the classroom are also problems of world neighbors getting along with each other?
2. What contributions to our welfare do the peoples of other lands make?
3. How are the various groups of people interdependent?
4. How is my daily life influenced by current events abroad?
5. How do the problems of home and family living common to all peoples bring neighbors closer together?

6. What can we learn from our neighbors abroad that will help us improve our diet and health and leisure habits?
7. How are the work opportunities in our community affected by events abroad?
8. How can a knowledge of lands abroad help us become more intelligent consumers of goods?
9. What do we want to know about a region to help us more fully enjoy traveling in that region?
10. How does the art of a nation reflect some characteristics of the land and its people?
11. What traditions and interests have we in common with the people of other lands?
12. Why is it essential that we be interested in the whole world? Why should our world really become one great community of neighbors?
13. How have the peoples of the Scandinavian countries learned to live successfully in difficult lands?
14. What peoples of the Western Hemisphere are adjusting themselves to difficult environments?
15. Why are many Americans particularly interested in the countries of western Europe?
16. Why is western Europe a great industrial and trading area as well as an agricultural region?
17. Why are the Mediterranean lands sometimes called "gardens by the sea"?
18. Why is it important for me as an American citizen to learn about the people and regions of the U.S.S.R. as a great Eurasian country?
19. Why has it been necessary for the American people to become better acquainted with the peoples and regions of the Middle and Far East?
20. Why are the lands of the Near East important to us?
21. Why is Africa considered a land of pioneers?
22. How has work in Japan been affected by the fact that Japan is an island empire?
23. Why is China frequently a land of famine?
24. Why is rice a desirable crop in such a crowded country as China or where farm land is scarce?
25. What must I know about the people of Norway (Insert any country to be studied) in order that I can help develop the "One World" idea?
26. What must I know about the peoples of foreign countries in order to develop world peace?
27. What are the agricultural problems in the Mediterranean lands?

ILLUSTRATIVE UNITS

These units may be readily adapted for local use.

- UNIT I: Getting Acquainted
- UNIT II: How Can We Learn to Appreciate Our Neighbors?
- UNIT III: How Can We Become Better Acquainted with the Countries of Our Ancestors?
- UNIT IV: What Adjustments Do People of Mountainous Lands Make to Their Natural Environments?
- UNIT V: How Does the Way of Life in Our Community and in Our Nation Compare with That of People Living in Australia?
- UNIT VI: Why Are Americans and Other People So Greatly Interested in China?
- UNIT VII: What Contributions Are People of Other Lands Making to World Culture and Progress?
- UNIT VIII: India: What Are Its People and Customs?
- UNIT IX: What Is the Relationship Between Geography and Family Living?

NOTES

UNIT I

ORIENTATION UNIT—GETTING ACQUAINTED

<i>What New Pupils Need to Know</i>	<i>Suggested Learning Experiences</i>	<i>Desired Outcomes</i>
<p>How to get to school and home</p> <p>Routes</p> <p>Money—car tickets</p> <p>Clothing needs for weather</p> <p>Safety hazards</p> <p>Conduct and behavior problems</p>	<p>Draw street and route maps.</p> <p>Walk around to see safety hazards.</p> <p>Inspect gardens of school and homes.</p> <p>Interview car and bus conductors.</p> <p>Have member of school transportation committee as speaker.</p>	<p>Safety habits</p> <p>Self-control</p> <p>Group control</p> <p>Promptness</p> <p>Freedom from fear</p> <p>Self-confidence</p> <p>Self-reliance</p> <p>Thrift</p> <p>Foresight</p> <p>Ability to plan</p> <p>Respect for property</p>
<p>Lavatories</p> <p>Location</p> <p>Cleanliness</p> <p>Conservation of supplies</p> <p>Rules</p>	<p>Go to these rooms to see them and be able to find them on each floor.</p> <p>Spell and say the word "lav-a-to-ry"; plan for self- and group-controls.</p> <p>Discuss and learn rules.</p>	<p>Health habits</p> <p>Care of property</p>
<p>Lockers</p> <p>Location</p> <p>Combination locks</p> <p>Where to put belongings</p> <p>How to avoid crowding</p> <p>Route to use at dismissal</p>	<p>Visit locker office.</p> <p>Practice use of locks.</p> <p>Go to lockers and put away clothes; practice all cautions.</p> <p>Practice use of stairs and fire towers.</p> <p>Practice getting clothes and putting them on outside the lockers.</p> <p>Practice ways of avoiding overcrowding.</p>	<p>Freedom from fear</p> <p>Skill</p> <p>Speed</p> <p>Honesty</p> <p>Courtesy</p> <p>Safety</p>
<p>Schedules (rosters)</p> <p>Areas of learning</p> <p>Time allotments</p> <p>Where to go and when</p> <p>Where to get information</p> <p>Where and when to find teacher</p>	<p>Make several copies of schedule.</p> <p>Have one copy posted in the room.</p> <p>Discuss next day's schedule before leaving.</p> <p>Make floor plans.</p> <p>Take trips around building each day to locate next day's new rooms.</p> <p>Learn to tell time.</p> <p>Visit office to see school file of pupil and teacher rosters.</p>	<p>Freedom from fear</p> <p>Self-confidence</p> <p>Promptness</p> <p>Understanding of program</p>

ORIENTATION UNIT—GETTING ACQUAINTED—Continued

<i>What New Pupils Need to Know</i>	<i>Suggested Learning Experiences</i>	<i>Desired Outcomes</i>
	Assign helpers to those in need. Learn what to do, where and when to go before 8:45 A.M.	
Lunch Location of cafeteria Rules—traffic, cleanliness, safety Time Menus—selection Disposal of dishes and waste	Go to cafeteria to practice all needed procedures. Visit change booth and practice orderly line, care of money. Send child to get menu each day. Practice taking back dishes on tray.	Freedom from fear Honesty Judgment Health Cleanliness
	Plan routes to be used and practice conduct on stairs and in fire towers. Walk over routes to be used to get to fountain, play areas, lavatories.	Cleanliness Health habits Promptness Safety Skills Better use of money Citizenship
Assembly Location Time Conduct on the way Audience behavior Seats to be used Care of property Rules	Go to auditorium. Find and occupy seats. Discuss behavior. Show what to do for special assembly seats. Practice leaving.	Self- and group-controls Enjoyment
Library Use of room for reading and research and committee work; taking out book Catalogs and files Location of books and magazines	Go to library. Arrange for instruction by librarian. Take out reading cards. Select and take out books. Go to library to practice.	Skills Improved tastes Increased reading Care of property
Infirmiry Location Excuses to go to infirmary Times	Visit. Send committee to interview nurse.	Health and safety Correction

ORIENTATION UNIT—GETTING ACQUAINTED—Continued

<i>What New Pupils Need to Know</i>	<i>Suggested Learning Experiences</i>	<i>Desired Outcomes</i>
Isolation room Location Forms to be used Consequences	Read and practice filling out forms to be used. Visit the room. Read and fill out a form. Discuss behavior problem.	Self-control Judgment Freedom from fear
Play spaces Location Facilities Rules Time	Visit roof. Go over the route to be used. Organize for group control. Assign time for use. Discuss safety.	Freedom from fear Safety Courtesy Self- and group-controls Responsibility Promptness
Administration Location of main office; of principal's office Learn names of school administrators and their relation to the pupil	Visit offices. Be introduced to secretaries. Learn location of roll books and telephones. Get and record telephone numbers. Practice what to say and where to go when on messenger service.	Freedom from fear Security Social skills Understanding of school and its program
Counseling Location of office Names of counselors Problems handled How to get appointment	Visit office. Interview or call in counselor as speaker. Read and fill out forms.	Security Freedom from fear Guidance for each as needed

UNIT II

A RESOURCE UNIT—HOW CAN WE LEARN TO APPRECIATE
OUR NEIGHBORS?

PART ONE

Why and What? (An Overview)

Most geography teachers realize that we shall never have a truly democratic society until all people believe that everyone should possess equal political and religious freedom. Unfortunately, this is not true of a great many citizens of this country. Every alert individual realizes that, in spite of great progress in geographic education, prejudice and discrimination still exist.

The schools of the country have done much to promote better intercultural relations among pupils and parents. However, many of our children come from homes where bigotry and intolerance still prevail. Many of them truly believe that "Members of the white race are more intelligent than those of the black."—"All Japanese-Americans are disloyal to the United States."—"All Jews are rich."—"All Italians have quick tempers."

Of course not many people believe all of these pernicious stereotypes, but nearly everyone has at least one pet prejudice which he jealously guards against all scientific, ethical, geographic, or logical consideration.

This raises several important questions: (1) Should geographic education do something about this problem? (2) What can geography do? (3) How can geography attack it? These are the questions with which we shall deal in this resource unit.

Our schools exist to give the children experience in democratic living and to prepare them for the responsibilities of adult citizenship in America. Democracy cannot exist in an atmosphere of hate, distrust, envy, and fear. The promise of democracy is lost unless a progressive solution is worked out for all people. All forces of good should develop an attack on the problem. Therefore, there is nothing more worthy of inclusion in the geography course of study.

No two schools can use the same program, because no two schools have the same problems confronting them. In a great many schools there exist tensions which should receive prompt treatment; in others, where

the school population is more homogeneous, the problem must be considered from a different point of view. Each school will have to decide on its own methods, materials, and means of cooperation with community agencies interested in the same problems. We must also point out that an educational program must not only make contact with those in school; it must make contact in many ways with those adults from various geographic regions who can by word and deed contribute richly to or destroy all that the school is striving to do.

Knowledge, unless translated into action, exists as excess mental baggage. Planning assembly programs that use all children who have contributions to make is a demonstration of democracy in action. Inviting outstanding members of racial and nationality groups from several geographic regions to the school, thereby developing an appreciation of their contributions, is important. Relating issues of school tensions to community problems of a similar nature can serve to give a broader understanding of what is involved. Recognizing ability in any field—social, intellectual, artistic, or mechanical—may lead to appreciation of people who, on the surface, appear to be different because their immediate ancestors came from various geographic areas.

In order to use this or any other intercultural unit successfully, it must be developed in a favorable atmosphere. This condition will exist only if the principal, teachers, and all members of the staff having any contact with the children, actively contribute to the program.

This resource unit can make only a little scratch on a tremendously large surface. Suggestions are developed for three approaches to the problem of intercultural relations through geographic understandings. They are:

1. Geographic
2. Cultural
3. Religious

Each approach will be presented separately for purposes of clarity and organization; but it will be obvious that various combinations can be made in the approach. It is entirely possible that none of the three will be specific enough for a given situation in a given classroom or school. In that case, perhaps, the learning activities, bibliography, or evaluation techniques will prove helpful.

PART TWO

Learning Activities

A. INTRODUCTORY

1. Discuss meaning of the word *prejudice*.
Derivation of word
Difference between relatively harmless and harmful prejudices
2. Make a survey of prejudices existing in the class or observed by its members.
3. Study how prejudices have affected families.
4. Collect news items proving the existence of prejudices in the world today.
5. Discuss reasons for the existence of prejudice.
6. Make a map of the community or city, showing where different nationality groups have settled. Discuss reasons for the distribution.
7. Discuss the results of prejudice and discrimination on the victim, on the aggressor, and on society as a whole.
8. Read and discuss the pamphlet *Probing Our Prejudices* by Hortense Powdermaker.

B. LET THE FACTS SPEAK (The use of geography to examine prejudice)

The ways of thinking geographically are powerful weapons to use against the forces of intolerance and misunderstanding. Geography recognizes the common origin of races and does not assume that there are pure races or that there are unique racial characteristics. Racial blood differences, we know, do not exist. Hair and skin differences do exist, but do not in any way indicate inferiority or superiority.

Correct thinking, when it is developed, can prevent the fixation of many fallacies. Generalizing with too little data, confusing fact and assumption, and applying conclusions to unrelated data are common mistakes which lead straight to undesirable thinking about races, religions, and nationalities that happen to be different from our own. The whole concept of differences needs clarification among youngsters. It must be made clear that a difference in geographic origins, in appearance, or in manner, custom, speech, or dress is not a sign of a better or poorer human being.

The evil that can come about as a result of distorting facts about geography, race, religion, and nationality must be apparent to all people today. It seems that even children can be led to understand this. This resource unit will help the teacher to make the study of this unit interesting. Even if only a little better understanding and action result, the effort and experience will be well rewarded.

1. Present the familiar situation, "If there were a ladder standing against a building, would you walk under it?" Discuss the superstition involved. Make a list of other superstitions that the children know. Attempt to arrive at an understanding of the origin of a superstition.
2. Choose one or two superstitions like the one about placing a horsehair in water and try it out as a scientific experiment. From the results, draw the obvious conclusions and make as detailed a comparison as possible between superstition and fact.
3. Discuss the reasons various people have for holding on to superstitions.
4. Read a pamphlet on the fight against germs to get an understanding of the way in which a scientist works to combat superstition. Reports, oral or written, would be appropriate.
5. With the background of some of the learning activities already given, write and discuss how to go about disproving the following statements:
 - a. All Orientals are sneaky.
 - b. Mexicans are dirty.
 - c. All Scottish people are stingy.

Distant groups were purposely selected for this first attempt at developing a scientific way of judging people. Collecting geographic data from reliable sources, checking all facts, stating conclusions that are in harmony with the facts—these things should be done carefully without formalizing the intellectual process that is here involved. The common fault of generalizing on meager information should be constantly exposed as the loose talk of the intolerant and the prejudiced.

6. Read appropriate portions of *Races of Mankind*, by Ruth Benedict and Gene Weltfish, to get an elementary understanding of the meanings of geography, race, religion, and nationality.
7. Make reports on the following topics:
 - a. How did Hitler use false ideas about race?
 - b. What are the main races of mankind?
 - c. Why are many ideas of Catholicism, Protestantism, and Judaism alike? (Use *One God*, by Florence Mary Fitch)
 - d. Why are there so many different nationality groups in our United States?
 - e. From what geographic areas have our people come?
8. Make drawings of racial types. Emphasize the fact that great variations exist among the members of any one race.
9. Mark on a world outline map the places of national origin of the parents of the children in the school. Graphs could also be made.

10. Test the accuracy of understanding of geography, race, religion, and nationality by asking for the racial identification of each of the following:

a. Chinese	h. Buddhist	o. Scotsman
b. Negro	i. Puerto Rican	p. Caucasian
c. Jew	j. Englishman	q. Arabian
d. Turk	k. Mongolian	r. Japanese
e. American	l. Catholic	s. Christian
f. Hindu	m. Mexican	t. Frenchman
g. Spaniard	n. Mohammedan	
 11. Trace the development of the idea of the master race from about 1930 to the present. Relate the investigation to the time of World War II.
 12. Pose two questions for discussion:
 - a. Does our Constitution allow the grouping of people as superior or inferior? Locate and read the portions of the Constitution that prohibit this.
 - b. Are there Americans who prove by what they say and do, that they think other Americans are inferior? Discuss experiences.
 13. Collect and post under the following bulletin-board headings (a) *This is America* and (b) *This is Democracy* pictures that show cooperation or true American behavior. Pictorial magazines and newspapers can be used for this.
Discuss the pictures and relate what they show concerning the guarantees of the Constitution of the United States.
 14. List the common prejudices that pupils know about cultural groups in the neighborhood.
Plan how to get at the facts to prove or disprove a given stereotype. Personal investigation, reading, invited outside speakers, invited teachers who belong to the cultural group in question, and films are suggested as learning activities. It is important to draw definite conclusions in written or oral form; or in the form of posters, graphs, or scrapbooks.
 15. Discuss what is meant when a person is described as "being different." Point out the fact that "different" does not mean superior or inferior.
 16. Write on the blackboard the motto on the Statue of Liberty and discuss its implications.
- C. LET THE RECORD SPEAK (The use of cultural and geographic differences as a means of developing intercultural understanding)

The class is a community. In many ways it reflects the problems that concern our city, state, and nation. Tensions often exist both within and among cultural groups; bad feeling may be above or below the surface; pupils may or may not be friendly toward each other. There are good and bad leaders; some children follow blindly, others show some independence of action. Intel-

ligence is endowed variously—this, too, in the classroom as in larger communities, leaves its mark on the intercultural attitudes that young people acquire. Some have enough money, others must learn to compensate for the lack of it. It's a tremendous complex of differences. The teacher is faced with the task of resolving some of them.

Further complications set in when geographic, racial, religious, and national minorities are part of the composite scene. It's a difficult job to develop democratic behavior in the daily personal and group relationships in the school and in the outside community. Yet, this job must receive attention; otherwise, the school can be charged with closing its eyes to an urgent fundamental need. Rights and responsibilities must be clearly taught and understood. Sympathy, friendliness, and patience must temper the relations of teachers and pupils. An appreciation of the contributions of different geographic groups must be developed through learning activities that are interesting and concrete enough to influence the behavior of youngsters.

The following suggestions can help make young people of various geographic origins regard each other as worth-while human beings so that America will keep moving toward its ideals of humanity and justice.

1. Make a survey of the major geographic groups represented in this country, considering when and why they came here, and where they settled.
2. On an outline map of the United States, locate and mark concentrations of different groups. Use maps of your own town for the same purpose.
3. Make graphs showing:
 - a. Number of immigrants to this country over periods of several years
 - b. Number of immigrants from different countries of the world
 - c. Number and origin of foreign-born citizens living in this country at present
 - d. Composition of class according to national background
4. Study immigration tides in relation to the demand for labor when America's basic industries were being developed. For example:
 - a. Importation of Negro slaves from Africa to work in the cotton fields of the South
 - b. Use of Chinese coolie labor to help build the western railroads
 - c. Slavic immigration to the Allegheny Valley in Pennsylvania to work in the iron and coal mines and in the steel mills
5. Prepare a program of songs and dances from different cultural groups. Use native costumes if they can be obtained.
6. Compare words which are nearly the same in English as they are in a foreign language.

7. Listen to recordings of music written by members of groups being studied.
8. Listen to and compare recordings of folk music of groups being studied.
9. Visit art museums to see famous works of art of the native country of each of the groups under consideration.
10. Look at paintings done by Americans of various racial or national origins.
11. Make a study of the handicrafts typical of certain geographic groups. For example, the needlework of the Italian women, the pottery of the Pennsylvania Dutch.
12. Find the sources of some popular American dishes such as goulash, corn bread, spaghetti.
13. Make designs that are similar in motif to those that have distinct national character. Apply these designs to handkerchiefs, clothing, curtains, ceramics, and tablecloths.
14. Invite speakers from various intercultural organizations to tell of the contributions of their groups to American life.
15. Prepare an exhibit of arts and handicrafts typical of various national and racial groups.
16. Read and discuss poems and folk tales of other countries.
17. Discuss the effects of improved transportation and communication on bringing people together.
18. Discuss the effect of the war on intercultural understanding.
19. Let children make scrapbooks entitled
 - a. Famous People of My Race
 - b. People Like Me
20. Find out the racial and/or geographic backgrounds of famous Americans living today.
21. Discuss motion pictures having authentic geographic material. If possible see some outstanding examples of this type of picture.
22. Have children ask parents and grandparents to tell them about the life they led in other countries and their reasons for coming to the United States.
23. Collect and compare folk tales that have been told to the children by the adults in their families. These may also be compared with stories that children have read.
24. Write and produce a pageant which will illustrate the contributions that immigrants have made to the United States.
25. Arrange a folk festival which will illustrate folk songs and dances of groups represented in class, school, or neighborhood.
26. Visit a folk festival, if it is held during the time the class is working on this topic.

27. Relate economic status to causes of prejudice. Children are prejudiced early by quality of dress, amount of spending money received, and kinds of homes their classmates live in. Adults very readily classify occupations on a scale of desirability. It is important that children come to realize that all honest work makes a necessary contribution to society.
28. Have pupils correspond with children in other lands. (Use facilities of Junior Red Cross)
29. Paint a frieze that will show the Americanization of an immigrant family.
30. Study the biographies of outstanding representatives of the geographic groups under consideration.
31. Visit community agencies, churches, stores, markets, restaurants, intercultural agencies which serve the different groups in the city.
32. Use bulletin boards or scrapbooks that have as their theme:
 - a. Who's Who?
 - b. Hall of Fame
 - c. Do You Know?
33. Use any current radio programs which are pertinent to the problem.
34. Study the achievements of members of different geographic groups in the following fields:
 - a. Scientific research
 - (1) Medicine
 - (2) Agriculture
 - (3) Industry
 - (4) Chemistry
 - (5) Communication
 - (6) Transportation
 - b. The arts
 - (1) Music—classical and modern
 - (2) Literature
 - (3) Painting
 - (4) Sculpture
 - (5) Architecture
 - (6) Interior decoration—furniture, rugs, wall paper, draperies, lamps, pictures, and other decorative articles
 - (7) Theater — playwriting, acting, stage designing, lighting
 - (8) The dance
 - (9) Radio and motion pictures
 - (10) Industrial arts—textiles, metals, ceramics, plastics
 - (11) Commercial art
 - c. Government
 - (1) Local
 - (2) State
 - (3) National

D. LET RELIGION SPEAK

Children are aware of religious differences. It's a fact that even the very young may have strong religious prejudices. These are often expressed in name-calling, formation of cliques and gangs, and fighting. Yet close examination of the spirit of various religions will reveal many elements that should promote rather than destroy unity.

This part of the unit presents learning activities that may be used to stimulate thought about some of the important similarities of Protestantism, Catholicism, and Judaism. No more than that is intended.

This is a job to be done delicately and with sensitivity. It is a job that adult groups are attempting today. We in the schools may have a part in helping to form desirable interreligious attitudes. Many of the following activities will depend upon local acceptance of such a program.

1. Make a list of the religious groups found in the neighborhood.
2. Discuss various definitions of religion.
3. Discuss standards of right and wrong as taught in every religion. Emphasize the fact that all Jews, Catholics, and Protestants worship the same God and base their principles on the same Ten Commandments.
4. Some children may wish to read and discuss *One God*¹ by Florence Mary Fitch.
5. Make a collection of newspaper and magazine articles which tell of incidents that demonstrate the fact that members of one geographic group can work with and help those of another. There are many such stories being printed, especially those relating to the armed forces.
6. If local conditions make such action advisable invite a priest, a minister, and a rabbi to visit the class to talk to the children and answer their questions.
7. Visit a Jewish synagogue, a Catholic church, and a Protestant church. Arrange, in each case, to have the rabbi, priest, or minister present to show the children around, and answer their questions.
8. Write and produce plays demonstrating religions living together. Plan assembly programs or pageants to celebrate Jewish and Christian festivals which occur at approximately the same time of the year.
9. Study biographies of some outstanding religious leaders and their contributions to American life.
10. Examine prayers and hymns used by members of different faiths for points of similarity.
11. Discuss the fact that many of the early settlers came to this country for religious freedom. Visit old churches.

¹ See bibliography at conclusion of this unit.

12. Examine newspapers and magazines for examples of religious tolerance and intolerance in modern times.
13. Discuss the effects of intolerance on life in America.
14. Collect and display pictures of the interiors of churches and synagogues, of various religious services, and of symbols used by different religious groups.
15. Collect copies of and discuss some of the great paintings inspired by religion to see how religion has influenced art.
16. Study pictures of famous stained-glass windows found in some of the great churches of the world to find the influence of common beliefs in religion.
17. Have children make designs of stained-glass windows using religious symbols.
18. Listen to recordings of religious music by famous choruses, and discuss the emotions which these engender. Include Negro spirituals.
19. Read and analyze poems which present ethical standards that are expressed by many religions.
20. Study poems based on religious legends.
21. Study poems, stories, war correspondents' reports, letters, and messages from the battle fronts which express religious sentiments.
22. Point out that no one can be a good Catholic, a good Protestant or a good Jew if he does not practice "charity for all and malice toward none."

PART THREE

Resources

There are many books, magazines, and pamphlets on the subject of intercultural relations. There are also many organizations which have been formed for the purpose of promoting better understanding among people of different racial, religious, and geographic backgrounds. Literature and films can be obtained from any of these organizations. Listed here are books which are readily available, and films which can be obtained from conveniently located organizations. Some of the books contain excellent bibliographies. Attention is called to those in *Americans All*, published in 1942 by the Department of Supervisors and Directors of Instruction of the NEA, 1201 Sixteenth Street, N.W., Washington, D. C., and in *Get Together Americans* by Rachel Davis DuBois. There is also a very extensive list of materials in the bibliography file of the libraries under Intercultural Education.

BOOKS AND PAMPHLETS FOR TEACHERS

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VISUAL AIDS

16mm. Sound Motion Pictures:

Airplane Changes Our World Map
 Argentina
 Arts and Crafts of Mexico
 Backward Civilization
 Belgium the Beautiful
 Brazil
 Children of China
 Children of Holland (Supplement
 No. 1)
 Children of Switzerland
 Chile

Citizens of the Future
 Coffee Democracy
 Czechoslovakia
 French Canadian Children
 Good Neighbors
 Highlights of 1936 Olympics
 Holland and the Dutch
 Indian Temples
 Land of Mexico
 Mayaland Today
 Mexican Children

Mexican Mural
Mexico, Native Arts of Old
Navajo Children
Navajo Indians
New England Fishermen
People of Canada
People of Hawaii
People of Mexico
People of Western China
People of the Congo
Peru

Peru Faces Today
Poland
Rio the Magnificent
Rumania
Rural England
Sons of Liberty
Story of Dr. Carver
Story of Dr. Jenner
Wandering Through China
Watussi of Africa

NOTES

UNIT III

HOW CAN WE BECOME BETTER ACQUAINTED WITH THE COUNTRIES OF OUR ANCESTORS?**I. *Preliminary Teacher Planning***

In a discussion of world happenings of the day, the question arose, "What makes America great?" One of the answers was "The mixed population." The question "Why?" brought a flood of answers. The teacher remarked that Americans all came from Europe at one time or another. Whether they came twenty-five years ago or 200 years ago doesn't matter; what really matters is the fact that our people wanted to leave their homelands for better opportunities and freedom.

The teacher then asked, "How many have a grandparent or great-grandparent who came from Sweden? Scotland? Norway? Czechoslovakia? Yugoslavia? Italy? Germany? France? England?"

II. *Orientation*

When the countries had been listed on the blackboard, the teacher continued:

"It would be interesting to know something about the countries which our ancestors left and try to discover why they wished to leave there, wouldn't it? Suppose we form in groups, each group studying a country from which their ancestors came. Your job will be an important one, for you will have to tell the rest of the class all the things they will want to know about this country. There are enough of us so that we can have five committees working on five different countries at the same time. Seven of you had an ancestor who lived in Sweden. Suppose you seven form the committee which will report to us on Sweden, and so on with the other countries."

III. *Learning Period*

A. Now what will your committee be interested in finding out about this country? Pupils develop items:

1. What kind of place is it? (surface, climate)
2. What natural resources does the country have?
3. What work do the people do and why?
Study several industries.
4. What do the people have to sell? From what ports are these products sent?
5. What are the people like? (their traits and customs)
6. Where have groups of these people settled in the United States?
7. What customs did they bring with them?

8. Try to find out about the time your people came to America. If possible, check the history of their country to find what the political situation was at that time. Does this shed any light on why your people wanted to leave that country?

Some may finish the work on their topics before the others and some may have shorter topics; so when your committee gets together, plan some activity for your group or for individual members of your committee, such as

1. Presenting a display of handicraft of that country
 2. Mural showing the life of that country
 3. Charts showing products
 4. Diorama showing the life of the people
 5. Sketches of the country
 6. Talk by a person from that country who is now living in the community
 7. Writing of a short play which would bring in an interesting custom of the people
- B. The committees met in their groups and decided on their chairmen. The chairmen listed the members and gave them a chance to select the topic on which they wished to work. The chairmen met with the teacher after school to plan the work and activity which the group planned to do. The teacher gave each chairman a card (5"x8") on which he was to list the members of his committee and give a report at the end of the week on how the members were progressing in their work.

To make sure that each member of the committee had a complete picture of the country, he read all the material given on the country in his text or one other reference book and answered the general questions prepared by the teacher for each group. After this work was done, he handed his paper to the chairman and began his special topic.

The chairman was responsible for seeing that:

1. Each member did the required reading.
2. Each member had some material for his topic.
3. The weekly report on the work of his committee was handed to the teacher, emphasizing work habits and attitude toward work.
4. Questions on his country were prepared to test the class after the reports were given.
5. The materials needed for the activity were ready for the students when they had finished the topics.

Each member was responsible for:

1. Reading all available material about the entire country.
2. Preparing his topic.

3. Two or three questions to ask the class after his topic had been given.
4. Any charts or graphs or pictures to make his talk more comprehensive.
5. His share of the activity.

IV. *Culminating Activity*

When most of the committees had completed their work, one group began to give the picture of the land from which their ancestors had come. The chairman had charge of the lesson. Each one gave his report, using pictures, graphs, and maps to make his topic clear. He then asked questions of the class on the material he had presented. The project which the group had made was used to explain some of the many concepts which the pupils wanted the class to have. In one instance, an adult came in to talk about his native country; in another, in describing customs, the pupil wore the dress used in a festival of the country, and recordings of some of the music of the country were played.

When all the topics of the committee were given, the chairman summarized the work on the country and gave a test to check the information gained. (The questions were prepared by the chairman and checked by the teacher. Papers were graded by the chairman, assisted by the teacher.)

V. *Evaluation*

- A. The unit gave the pupils a pride in their background and it showed what their people had contributed to make America great.
- B. The unit made them interested in the work of other committees and developed respect and appreciation for other people.
- C. The unit created an appreciation of some of the sacrifices which were made by their people in order that they might live in a free country.
- D. Each student had a personal interest in what he had to tell the rest of the class. (This interest led him to the community sources of information.)
- E. The activities (murals, models, etc.) showing life in these lands developed learnings necessary in adult life.
- F. With the work so well motivated, there was no problem of discipline.

(The geography of five countries of Europe was studied in five weeks.)

VI. *Bibliography*

The textbook
Encyclopedias

Library books
Single copies of a few textbooks

UNIT IV

WHAT ADJUSTMENTS DO PEOPLE OF MOUNTAINOUS LANDS MAKE TO THEIR NATURAL ENVIRONMENTS?**I. *Orientation Overview***

- A. Bulletin board display: Pictures of Swiss mountains and other scenes, such as waterfalls, glaciers, roadways giving evidence of engineering skill, scenes from peasant life, mountain homes and pastures, and the like.
- B. A display of a music box, Swiss-costumed dolls, a clock, and wood carvings stimulated the students to ask questions.
- C. Records selected from overture to "William Tell."
- D. Current events were discussed.
- E. Books on Switzerland, fiction and nonfiction, were placed on the browsing table and bookshelves.
- F. Letters were written to travel agencies to request materials.

II. *Objectives* (developed by pupil-teacher planning)

- A. To understand how the natural resources of a country influence life in a particular country
- B. To understand some of the economic problems which man must face in his attempt to make a living, and to seek other relationships to the natural setting
- C. To establish an attitude of appreciation and understanding of the Swiss people through studying about their cultural and natural environment
- D. To demonstrate man's ability to adjust certain aspects of the physical world to serve his purpose

III. *Development*

The following topics were studied and reported on by individuals and by committees:

- A. How do climate, waterways, mountains, and glaciers influence the Swiss mode of living?
- B. What plant life and animal life are found in Switzerland?
- C. How do the people use the valleys and lower mountain slopes?
- D. How do people travel through this mountainous country? Paths, roads, railroads, tunnels, lakes
- E. How do the mountains and lakes attract tourists the year round and help to provide work for many Swiss people?
- F. What are the major occupations of the Swiss people, and the reasons for these occupations?
Farming—grazing—manufacturing—home industries—tourist trade, etc.
- G. How do the Swiss use their rivers and falls to provide power?
- H. Relation of the geography of the country to the language, religion, and social customs of the people

- I. The contributions the Swiss have made to world culture and progress.
- J. How can we apply lessons learned from the Swiss to our own lives and communities?

IV. *Activities*

- A. Pupils gathered and prepared material for notebooks and for classroom exhibit.
- B. Made map representations of Switzerland showing natural and cultural features.
- C. Developed a picture map of Switzerland
- D. Made collections of pictures and articles of commerce and developed a series of explanations to show how the Swiss are able to produce these articles.
- E. Made a cross section of a mountain from clay showing half of a spiral tunnel and a mountain highway.
- F. Dramatized the life of William Tell and wrote original plays on Swiss life.

V. *Activities Correlated with Learning in Other Subjects*

A. ENGLISH

- 1. Told and wrote original stories taken from the geography content materials.
- 2. Wrote business letters to travel agencies to request and acknowledge materials.
- 3. Exchanged letters with friends based on an imaginary trip to Switzerland.
- 4. Wrote individual and cooperative group compositions for individual and class booklets.
- 5. Read books and made book reports.
- 6. Wrote poems, jingles, and rhymes about Switzerland.
- 7. Made a bibliography of books on Switzerland and collected a classroom library.
- 8. Gave oral reports on findings of research work.

B. MATHEMATICS

- 1. Made and solved problems in connection with an imaginary trip to Switzerland—getting ready for the trip, distances by ocean route, great circle route, actual expense of the trip, etc.
- 2. Made various kinds of graphs.
- 3. Made and solved problems in measuring in connection with construction of exhibits and Swiss scenes.

C. SCIENCE

1. Studied about the wild flowers of Switzerland—especially the edelweiss.
2. Studied the appearance, habits, and uses of animal life—the chamois, etc.
3. Studied climatic conditions, etc.

D. ART

1. Many of the activities made use of one or more of the following:
 - a. Chroma or color strength
 - b. The third dimension in representation
 - c. Space division in design
 - d. Boldface capital letters

E. MUSIC

1. Listen to recordings
 - a. William Tell Overture
 - b. Alpenladder
 - c. The Cuckoo Waltz
 - d. In a Clock Store

F. HOME ECONOMICS

1. Tried out Swiss recipes
2. Embroidered designs on Swiss aprons
3. Made butter
4. Learned to make cheese

G. PHYSICAL EDUCATION

1. Made up a set of training rules which each pupil tried to carry out.
2. Learned the Swiss May dance and the Swiss mountain climbing dance.

VI. *Evaluation*

- A. Tests designed by the teacher were given to measure the achievement of the class.
- B. Notebooks, projects, etc., were evaluated by teacher and pupils.
- C. Self-rating tests were given the students.

VII. *Bibliography*

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UNIT V

HOW DOES THE WAY OF LIFE IN OUR COMMUNITY AND IN OUR NATION COMPARE WITH THAT OF PEOPLE LIVING IN AUSTRALIA?*I. Orientation*

- A. Gave a pretest on Australia. A simple locational test using the blackboard, outline map, and oral questions on Australia helped to determine the additional work needed in maps, pictures, and word study by each pupil.
- B. Personal interview with each pupil. This method revealed the special weaknesses and strong points of the pupils. Results of the interview were kept on file.
- C. Pictures—Black's set of pictures on Australia and those sent to the teacher free of charge by the Australian News and Information Bureau, were excellent in showing both the cultural and natural items of the continent.
- D. A cooperative study of maps was made. Physical, political, climatic, vegetation, population, and economic maps showed the distribution of natural resources and crops.
- E. A study of graphs was made, comparing the United States and Australia in area, population, etc.

II. Objectives (developed through pupil-teacher planning)

- A. To discover how the Australians are adjusting their activities to their environment, thus developing better understandings of the relationships existing between man and nature.
- B. To see the effect on the development of Australia's resources and on her population patterns of such natural conditions as location far to the east of the mother country, England, and near Japan and the islands of the Pacific, a position facing the Pacific rather than the Atlantic Ocean; latitudes ranging from 10 degrees south in the north to 43 degrees south in Tasmania; unreliable precipitation; and the deposits of mineral ores.
- C. To investigate the plant and animal life of Australia in order to compare them with those of other countries and continents.
- D. To study likenesses and differences between Australia and the United States and, in part, to try to see why these likenesses and differences exist.
- E. To see what effect membership in the British Commonwealth of Nations has had and will continue to have on Australia's development.
- F. To find out what contributions Australia has made to the rest of the world.

- G. To try to see what is ahead for Australia in her adjustments to nature conditions.
- H. To apply learnings about Australia to our own lives and communities.

III. *Major Understanding or Core of Thought*

A major understanding to be gained in a study of Australia is a realization of how her people have adjusted themselves and their activities to the nature conditions of this unique island continent and what remains still to be done.

Among the most important facts concerning Australia are: the sparse, unevenly distributed population (ninety-eight per cent of British stock), most of which is concentrated in the south-eastern part in a few large cities; the outstanding importance of pastoral and farming work; the importance of mining; the development of trade; the comparatively late and rather slow growth of manufacturing.

These, as well as other items dealing with man, may be explained in part by such natural conditions as unevenly distributed rainfall, a variety of temperature due to Australia's position in both equatorial and middle latitudes, the presence of mineral resources such as gold, coal, iron, copper, lead and zinc, a location far to the east of England and in the Southern Hemisphere, and isolation from other lands.

The relationship between the cultural facts featuring man's activities and conditions in Australia and its natural environment, makes up the geographic individuality of the continent.

IV. *Geographic Relationships*

These relationship understandings were acquired by the pupils as the unit on Australia evolved. The symbol \longrightarrow means "is (or are) related to."

CULTURE ITEMS		NATURE ITEMS
A. The uneven distribution of the sparse population throughout Australia (pop.—7,500,000)	\longrightarrow	<ol style="list-style-type: none">1. Uneven distribution through the year of the uncertain rainfall, ranging from less than ten inches in the interior to more than forty inches in the north2. Variety of temperature, due to north-south extent of the country3. Isolation from England and other lands4. Location of well-populated districts facing away from the main ocean routes
B. The outstanding importance of the sheep industry (Merino breeds, wool the leading export)	\longrightarrow	<ol style="list-style-type: none">1. Large area covered with scanty pasturage2. Light, uncertain rainfall3. Mild winters, hot summers4. Presence of underground water (artesian wells)

CULTURE ITEMS	NATURE ITEMS
C. The importance of cattle raising to the north of the sheep belt	<ol style="list-style-type: none"> 1. Mild temperature throughout the year 2. Better grasslands than in the sheep area 3. More abundant rainfall
D. Dairy farming in Victoria and New South Wales	<ol style="list-style-type: none"> 1. Nearness to large city markets 2. Temperature and rainfall favoring the growing of alfalfa and corn 3. Some natural pastures
E. Raising of much wheat in New South Wales, Victoria, and South Australia (three-fifths of all the cultivated land)	<ol style="list-style-type: none"> 1. Large area of level to greatly rolling land which may be cultivated easily 2. Hot summers, mild winters (medium climate) 3. Ten to twenty inches of rainfall 4. Fertile soil
F. Growing of nuts, olives, fruits, and other tropical products in some parts of Australia	<ol style="list-style-type: none"> 1. Mediterranean type of climate (hot, dry summers and mild, rainy winters)
G. The importance of mining in Australia	<ol style="list-style-type: none"> 1. Presence of deposits of gold, silver, lead, zinc, iron, and coal in abundance
H. Some lumbering in Australia (southwest corner of Western Australia)	<ol style="list-style-type: none"> 1. Presence of eucalyptus and tropical hardwoods, such as karri and jarrah
I. Rather slow growth of manufacturing (greatly expanded during the recent war)	<ol style="list-style-type: none"> 1. Sparse population creating little local demand 2. Dependence on United States and England for manufactured products as exchange commodities 3. Isolation from other countries
J. Large export trade in wool and wheat (Sparse population causes large surplus at home, great demand abroad).	<ol style="list-style-type: none"> 1. Natural conditions favoring sheep and wheat industries 2. Need for exchange products
K. The location and growth of Sydney as the greatest port and chief industrial city	<ol style="list-style-type: none"> 1. Location of Port Jackson affords a deep, roomy harbor 2. Easy access to productive hinterland
L. Location of other cities in southeastern Australia and Tasmania—(Most of Australia's cities are ports.)	<ol style="list-style-type: none"> 1. Excellent harbors 2. Productive lands from which may be obtained products for trade

CULTURE ITEMS

NATURE ITEMS

- M. Slow development of roads and railroads; use of different sections, sparse population, more foreign than inland trade, expansion of air transportation

1. Great distances between regions
2. Presence of deserts and jungles

V. *Procedure* (developed through pupil-teacher planning)

Committee members gathered information and gave reports on the following topics:

- A. Discovery and settlement of Australia
- B. Physical Features
 - 1. Surface
 - 2. Climate
- C. Plant and Animal Life
- D. Population
 - 1. Density and distribution
 - 2. Characteristics
 - 3. Government
 - 4. Social and cultural achievements
- E. Occupations
- F. Products of Australia
 - 1. Copper
 - 2. Silver
 - 3. Gold
 - 4. Sheep
 - 5. Sugar Cane
 - 6. Wheat
- G. Trade and Transportation
- H. Cities of Australia

VI. *Activities*

- A. Study activities which led to the major understanding
The pupils and teacher decided upon Australia's problems and through selecting, pooling, and organizing their committee work; by exploring, sharing, and evaluating their ideas and experiences with the entire class, they were able, in part, to help solve them. As a part of their work the committees
 - 1. Read from text and supplementary printed material.
 - 2. Studied pictures, maps, and graphs.
 - 3. Held group meetings and conferences with the teacher and other interested persons, who worked with them and helped them to gain specific information.
 - 4. Checked the community resources such as museum, library, and zoo for specific material on Australia and visited those places as committees. These experiences were shared with the entire class in committee reports.
 - 5. Reported on such topics as The Exploration and the Settlement of Australia, Plant and Animal Life, Schools, etc.

6. Exhibited materials—reports, maps, graphs, photographs, new words, clippings, and stamps which were assembled by each committee to share with the members of the class and school
7. Each committee kept a loose-leaf notebook on Australia.
8. Exchanged letters with children in Australia, whose names were obtained through the Junior Red Cross and similar sources. Invited persons who had been in Australia to visit the class.
9. Prepared a radio broadcast in which the similarity of Australia's problems and those of the United States were discussed.
10. Individual students investigated special problems.
11. One committee reported on how learnings about Australia can be applied to the students' own lives and to the local community.

VII. *Evaluation*

- A. What new concepts have the pupils learned concerning Australia as a continent and nation?
 1. Geography understandings
 2. Vocabulary
- B. What change, if any, has taken place in the pupils' attitude toward Australia and her problems?
- C. What abilities and behavior habits have been strengthened?
- D. In what way has the development of the unit helped to meet some basic and common needs of youth?
 1. *Citizenship*—Did the individual pupils learn to get along with the groups and the entire class? Did each pupil share in planning and carrying out the work?
 2. *Scientific Methods*—Did the children learn to appreciate the value of scientific methods in use in Australia?
 3. *Appreciation of Beauty*—Did the children show appreciation of the beautiful places in Australia?
 4. *Application*—How can what has been learned be applied by pupils to their own daily living?
- E. Types of tests
 1. *Matching Relationships*
 2. *Completion*: A summary paragraph was written, omitting key words. The pupil filled in blanks.
 3. *Accept or Reject*: A form of true-false test. The pupil gave reasons for rejecting certain statements.
 4. *Multiple Choice*: Several words were offered in answer to each statement. Choose the correct one.

5. *Association*: Mark on the map where the pupil thought the picture was taken.
6. *Recognition*: Pupils selected and read descriptive paragraphs on certain sections of Australia. The class identified the locations from these descriptions.
7. *Recall*: The pupils were given the key words to an outline which they filled in with details of the geography of Australia.

VIII. Bibliography

A. FOR THE TEACHER

Wood, Gordon—*The Pacific Basin*, Oxford University Press

Packard and Sinnott—*Nations as Neighbors*, The Macmillan Company.

Official Handbook—Australian National Publicity Association, Australian News and Information Bureau

All materials listed below for pupils should also be included in teacher's list.

B. FOR THE PUPILS

Books

- a. Allen, Nellie, *Africa, Australia and the Islands of the Pacific*. Ginn & Co.
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- c. Atwood, W. W., *The World at Work*. Ginn & Co.
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- e. Carls, Norman, and Sorenson, Frank E., *Neighbors Across the Seas*. John C. Winston Co., 1950
- f. Carpenter, F. G., *Australia, Philippines, and Other Islands of the Sea*.
- g. Hillyer, V. M., *A Child's Geography of the World*. Appleton-Century-Crofts, Inc.
- h. McConnell, W. R., *Living Across the Seas*. Rand McNally, 1939.
- i. McConnell, W. R., and Harter, H., *Geography of a Working World*. Rand McNally, 1947
- j. Thralls, Zoe A., *The World, Its Land and Peoples*. Harcourt, Brace.

Music—Songs

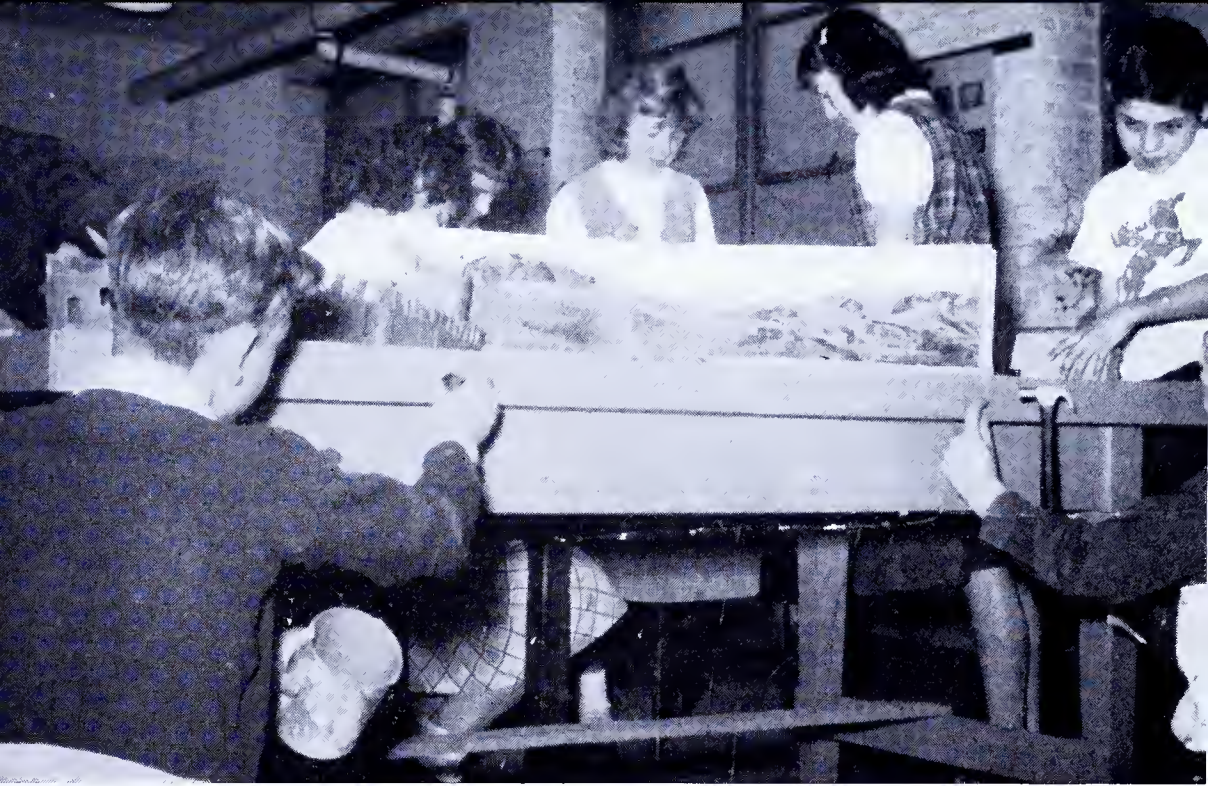
- a. *Advance Australia Fair*, P. D. McCormick, Palings, Sydney, Australia.
- b. *Australian Bush Songs*, Boston Music Co., Boston, Mass.
- c. *Teddy Koala's Book*, Boston Music Co., Boston, Mass.

Filmstrips—Available on loan

- a. *Australia Today*, Kodachrome—5 reels, 45 minutes, 16 mm.
- b. *Australia Calling*, two reels
- c. *Golden Fleece*, one reel, 10 minutes
- d. *Teddy Bears at Play*, one reel, 5 minutes

Literature, relating to Australia

- a. Culbertson, J. L., *The Australian Sunrise*
- b. Murdock, Walter, *A Book of Australian Verse*
- c. Masfield, John, *Trade Winds*, also *West Winds*



**CONSTRUCTING A TABLE PANORAMA TO MAKE UNIT ON CHINA
MORE REALISTIC**

UNIT VI

**WHY ARE AMERICANS AND OTHER PEOPLES GREATLY
INTERESTED IN CHINA?**

- I. *Needs in Which This Unit Can Help All Youth*
 - A. To learn how population of too few or too many people affects a country
 - B. To know standards of living in various parts of the world and what determines standards
 - C. To see how lack of unity and geographical conditions retard a country
 - D. To find out how geographical conditions help maintain security
 - E. To apply learnings to their own lives
- II. *Preliminary Planning*
 - A. After working on a unit on India, we decided to take another country with problems of leadership and overcrowding. After reading *Current Events*, the pupils selected China.
 - B. Introduction
 1. Teacher showed the class a gift she had received from China and told how it was made and from what city it had come.

2. Pupils volunteered to bring in gifts received and resolved to find out particulars about gifts: from what city, when sent, etc.
3. Teacher referred to newspaper clipping. The city named was underlined and an arrow led to location of city on outline map placed on bulletin board. "Why is that Chinese city named in our newspaper of interest to us?" was discussed.
4. This led to the decision that the study was to include: growth in all types of reading, a desire to read widely, and the further development of certain aspects of study skills including the use of encyclopedias, the dictionary, and other resources of the library; growth in oral and written language; growth in some functional utilization of arithmetic; and growth toward geographic educational goals.

III. *Orientation*

- A. Pictures selected by teacher and pupils from geographic magazines and other sources were posted on bulletin board for class discussion.
 1. A picture of a junk with a wash hanging out to dry; a child with a jug tied to him.

Questions: Why do they live like this? Why must they?
 2. A scene along the canal into Kunming showing a woman doing the family wash on the banks. (Boats carrying cargoes were also pictured in the canal.)

Questions: Why don't they use the washing machine or tubs as we do? Who uses them in China? Why don't they build more railroads instead of canals? Why do they use sedan chairs, carts, etc.? Why is this transportation so different from ours? What are the advantages of their methods?
- B. Interest aroused in population
Textbooks were used to look up population statistics, population distribution map, and physical and political maps.
- C. Problem stated and plans organized
 1. What are some of the facts that we should know about this country and how should we go about planning an investigation of these facts?
 2. Students suggested that the teacher should prepare chief problems and divide class into groups for work.

IV. *Learning Period*

- A. Eight pupils were selected by the class to work as leaders of groups. These eight selected members each chose one of the

eight questions. The pupils of each committee worked together to formulate questions to be answered in solving the problem. Questions were presented to the teacher for approval before work period began.

B. Work Activities

1. Oral reports by committee chairmen
2. Projects developed:
Models of homes in specific but different parts of China. Drawings prepared. Dolls dressed to show costumes of years ago and how modified today (Correlation with Sewing Class)
3. Trip to the city museum to see exhibits of China
Reports of trip
4. Graph showing total population in comparison with some other countries of the world
5. Picture graph showing farmers and other workers in China
6. Display of articles brought from home with a story attached to each
7. Pictured dictionary: junk, sedan chair, etc.
8. "Who's Who" in China
9. Story of silk made in form of "hand movie"
10. Diaries of cities
11. Maps: population, physical, climatic, mineral resources, agricultural products

C. Community Contacts

1. Students wrote and asked for air route to China, time and rate.
2. Inquired about steamship sailings, rate, distance, time, routes. Learned also about a ship from huge liner sketch sent us.
3. Used slides received from State Library, Harrisburg, listed in Bulletin 512, 1944 (*China Series Units—China Unit*)
4. Used films: *Children of China*, P.C.W., No. P19, 11 minutes, sound; *Here is China*, P.C.W., No. Mi-116, 21½ reels, sound, 32 minutes.
5. Heard report given by a returned veteran.

V. Questions from Which Pupils Worked

- A. Problem I—Why has so large, rich, and populous a country as China developed so slowly?
 1. Where do most of the people live and why? Make a map showing surface.

2. How has the population handicapped development? Make a population map.
 3. What kinds of workers and industries do we find? Show by picture graph.
 4. What industries are not developed? Why?
 5. Could customs retard development? Report on customs.
 6. Why has unity of people been impossible?
- B. Problem II—Will China's future development and success as a nation depend on agriculture or manufacturing?
1. What type of land do we find in China proper? How well is it used?
 2. How is the mineral wealth utilized? Make a graph or map.
 3. Do Chinese agricultural methods differ from ours? Why? Make a products map.
 4. Have the rivers influenced the lives of these people? Make a physical map.
 5. What does the *World Almanac* show regarding exports of China? Would a graph help show the contrast?
- C. Problem III—The Chinese Republic is larger than the United States. It is situated in approximately the same latitude. It has many rich resources. What is needed before the country can develop into a great nation? What resources will help in its development?
- D. Problem IV—Why is the Yangtze called the life artery of China?
- E. Problem V—Will the future Mongolia be a land of the nomad or the farmer?
- F. Problem VI—Will railroads and good highways make Sinkiang a prosperous region with a dense population?
- G. Problem VII—Use Tibet as an example to show that the civilization and culture of a people depend in part on their physical environment.
- H. Problem VIII—Why are many foreign nations so greatly interested in China and China's progress?
- I. Problem IX—What have we learned about China that we can use?

VI. *Culminating Activities*

- A. Invited pupils of another class to see the exhibit.
- B. Cut pictures of Chinese scenes from old magazines and pasted the most interesting ones on posters, labeling them neatly. Planned short talks to make the showing of the posters more interesting.

VII. *Evaluation*

- A. Each pupil made list of 5 to 10 questions for a quiz. Answers were given with page references to sources where answers were found.
- B. Teams were chosen.
- C. Game played, using pupils' questions—one point for each answered correctly.
- D. Tests

UNIT VII**WHAT CONTRIBUTIONS ARE PEOPLES OF OTHER LANDS MAKING TO WORLD CULTURE AND PROGRESS?****I. *Approach***

- A. Through a survey of the number of nationalities represented in our school, we discovered a large number from the Scandinavian Peninsula. This aroused interest in the study of Norway and Sweden.
- B. The pupils displayed pictures of these people on the bulletin boards, showing their manner of living and nature environments.
- C. Current news clippings were discussed, giving information regarding the position of the Scandinavians in world affairs.
- D. Articles were exhibited that had come from these countries.
- E. In the library, books and supplementary readings about the Scandinavians were displayed.

II. *Objectives*

- A. A General Understanding of Scandinavians
 - 1. To create a new understanding and respect for these people
 - a. Who they are
 - b. Where they live in the peninsula
 - c. The influence of geographic factors, as surface, climate, soil, other natural resources, transportation facilities, and location with regard to other people and markets
 - d. The progress made by these people in world affairs
 - e. Their contributions to civilization
(Science, government, literature, music)
 - 2. To realize that most people of the world are interdependent. No people in the world live entirely by themselves
 - 3. To help the pupils realize our heritage from Scandinavia

4. To realize that handicaps within a country may be overcome by man's learning and understanding
5. To realize that cooperation is necessary for a better world (The United Nations and the Atlantic Pact)

B. Pupils' Objectives

1. To acquire an interest in everyday world affairs
2. To learn more about these people
3. To learn more about these countries
4. To make contacts with natives of these countries

III. *Learning Period*

A. Committees of three each worked together finding information about the following:

1. Education
2. Religion
3. Fishing Industry
4. Swedish Iron Ore Industry
5. Reforestation in Sweden
6. Holidays, especially Christmas
7. Norway's Merchant Marine
8. Famous Scandinavians and their contributions to society
 - a. Amundsen
 - b. Ibsen
 - c. Grieg
 - d. Nobel
 - e. Linnaeus
 - f. Trygve Lie
9. Cities
Hammerfest—Narvik
Oslo—Stockholm—Bergen
10. Government
Rulers of each country
Some of their social laws
Place in world events

B. Problems to be discussed by entire class, individual, or a group (oral or written discussion).

1. How do surface and climate help to make the occupations of these two countries alike and also different?
2. How is each country making its living? What types of work provide incomes for these people?
3. Where is the center of population in each country, and why is this so?
4. Compare Norway's fishing industry with that of other great fishing nations of the world.
5. Why can Norway manufacture and yet lack coal, oil, and iron ore?

6. Why is life in Sweden easier than in Norway?
7. Why are Swedish steel products of a high quality? Why doesn't Sweden rank equal in steel production with Great Britain?
8. Compare Sweden's plan of reforestation with United States plan.
9. Why are so many Scandinavians carpenters?
10. Why have the Scandinavians always been desirable citizens in the United States?
11. Why does Norway attract the tourist trade?
12. What have we learned about Norway and Sweden that we can use? In our own lives? In our country?

IV. *Culminating Activities*

- A. Committee reports
- B. Displays of work done on the unit
- C. Individual reports
- D. Display of maps, charts, and posters secured from various sources
- E. Motion pictures. Pupils lectured on pictures as they were shown.

V. *Related Activities in Other Areas of Learnings*

A. ENGLISH

1. Letters written to steamship companies and travel agencies for information
2. Reports made to class on reference readings, on excursions, and on other experiences
3. Stories retold
4. Reports recorded for booklets

B. MATHEMATICS

1. Using tables of area, population, length of rivers, height of mountains, etc.
2. Solving problems that compare various measurements found in geographic tables

C. ART

1. Pictures of various phases of the unit
2. Maps—outline, physical, political, pictorial, and special features
3. Graphs of population, products, natural resources, exports, imports, etc.
4. Dioramas
 - a. A modern farm in Sweden
 - b. A modern factory near a waterfall
 - c. A fishing village

D. MUSIC AND DRAMATICS

1. Scenes from modern industries
2. Scenes from modern peasant life
3. Folk songs and dances

VI. *Evaluation*

1. Student Growth and Behavior
Records were kept to show cooperation, responsibility, respect for group participation
2. Growth in Pupil Learning
 - a. Daily records
 - b. Teacher-made information tests
 - c. Written and oral reports requiring ability to draw conclusions

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- Thralls, Zoe A., *The World, Its Lands and Peoples*. Harcourt, Brace and Company, 1948.

FICTION

- James, Neill, *White Reindeer*. Scribner, 1940.
- Judson, C. I., *They Came from Sweden*. Houghton, 1942.
- McSwigan, Marie, *Snow Treasurers*. Dutton, 1942.
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NOTES

UNIT VIII

INDIA: WHAT ARE ITS PEOPLE AND CUSTOMS?**I. *Pupil Concerns***

Excitement and enthusiasm over the new student (David Jacob) in the class who had come from India; a desire to learn firsthand about his country; concern also about Gandhi's death, and the effect on India

II. *Pupil Goals*

1. To learn about the country from which David came
2. To investigate possibilities of Gandhi's influence in establishing peace in India

III. *Content Outline*

1. Geography of India (climate, location, cities, etc.)
2. People and Their Customs
 - How India Makes a Living
 - Peers of Science
 - Pastime Games
 - Typical Indian Towns
3. India's Races and Religions
4. India's Problems (social, political, economic)
5. Epics and Legends of India
6. India's Great Leaders: Gandhi, Nehru, etc.
7. India of Tomorrow
 - What are the possibilities of enduring peace?

IV. *Activities*

1. Listening to radio commentators
2. Reading of stories of early literature of India
3. Collection of pictures, magazines, and news articles; books from libraries
4. Bulletin board display
5. Scrapbooks and experience records
6. Exhibition of souvenirs of India
7. Posters
8. Speakers—David Jacob and his mother
9. Dramatization, including the customs of India differing from our own
10. Drawing maps of India
11. Learning some of the language of Hindustan, taught us by David, class member
12. Film—*India*

13. Report on motion picture—*Sabu, the Elephant Boy*
14. Acceptance of gift from Mr. Jacob, which he himself made and gave to the class
15. Appreciation letter to Mr. Jacob for gift
16. Research work
17. Committee planning, pooling, and reporting
18. Assembly program—"World-mindedness"
19. Radio program
20. Quiz

V. *Culminating Activity*

Sharing findings in form of program, each committee participating

VI. *Bibliography*

BOOKS USED BY PUPILS

Come with Us to India—Patricia Kendall

Made in India (Story of India's People)—Cornelia Spencer

TEACHER REFERENCES

Here is India—Jean Kennedy

The Land and the People of India—Manarama Modak

Newspaper—*The Hindustan Times*, New Delhi

A Guidebook to Calcutta, Agra, Delhi, Karachi, and Bombay

Spotlight on the Far East—Bernstein

This Is India—Arthur T. Mosher

Our India—Minao Masoni

The Jatakas (Tales of India retold by Ellen Babbitt)

Asia (The Great Continent)—Kathryn Thomas

Inside Asia (School Edition)—Gunther

Wings Over Asia—Thomas and Barton

The Romance of Textiles—Ethel Lewis

Indian Gods and Kings—Hawkrige

Second Book of Marvels—Halliburton

Foreign Lands and Peoples—Russell Smith

The Flags of Dawn—Baker

Bells of India—Higginbottom

Letters from Near and Far (Grandma writes from India)

When I Was a Boy in India—Sankyanunda

International World Reference Atlas and Gazetteer

Foreign Lands and Peoples—J. R. Smith

Kim—Kipling

Just So Stories—Kipling

Newspaper articles—*Philadelphia Inquirer*, *Philadelphia Bulletin*, *New York Times*

National Geographic Magazine

Time (magazine)

Life (magazine)

UNIT IX

**WHAT IS THE RELATIONSHIP BETWEEN GEOGRAPHY AND
FAMILY LIVING?****The Balkan Region****I. Orientation**

- A. After the pupils studied selected pictures of the Balkans showing both human and culture items, they asked questions (See VI, p. 108). These questions were placed on the blackboard and were copied by the class secretary. They were used as motivation, and again at the close of the unit as means for determining the degree of achievement.
- B. The class selected four leaders, who in turn appointed three helpers to serve on each committee. Each group found the name of an ambassador from one of the Balkan countries.¹ Each committee composed a letter to be sent to the ambassador of the selected country, asking for geographic information about the Balkan area. (Correlate with letter writing in English classes.)

II. Goals or Objectives**A. Knowledge:**

1. Physical maps were studied in order that the pupils might realize that these are lands of valleys and mountains.
 - a. The mountainous topography is responsible for:
 - (1) Delay in uniting the people into one nation.
 - (2) Lack of industrial development since people are cut off from other civilization.
 - b. The valleys made it easy for different people to migrate here.

(1) Greeks	(5) Germans
(2) Rumanians	(6) Gypsies
(3) Bulgarians	(7) Hebrews
(4) Turks	
 - c. The areas for settlement are usually far apart.
2. YUGOSLAVIA
 - a. How people in different regions of Yugoslavia live because of natural conditions.
 - (1) Adriatic Shorelines (Dalmatia)
 - (a) Good coastline but few ports because of mountainous and unproductive hinterland
 - (b) Little farming because mountains are near the sea
 - (c) Fishing—sardines, tunny, anchovies—related to coastal waters (leading industry)

¹ Addresses published in *World Almanac*.

- (2) Mountain Slopes (Western Dalmatia)
 - (a) Steep
 - (b) Land used for grazing—suitable for sheep and goats, not cows
- (3) Mountain and Valley area
 - (a) Few trees—water soaks quickly into soft limestone rock, and rivers flow underground
 - (b) Homes of this area
 - One-story stone house with dirt floor
 - Roof of straw
 - (c) Transportation
 - Donkeys carry wool, tobacco, and salt pork down the mountainside to the coast
 - (d) How people make a living
 - Herding—enough grass for sheep and goats
 - Gathering beechnuts and acorns
 - Beechnut oil—substitute for butter
 - Acorns—meal for bread; dried and ground as a substitute for coffee
- (4) Mountains farther east
 - (a) Not so much limestone
 - (b) Hills more rounded and valleys wider
 - (c) Climate—Continental
 - (d) Forests of this region
 - Make up $\frac{1}{3}$ of area
 - Lumber—leading export
 - Need for roads and railroads
 - (e) Mountain farm
 - Chief food—corn and cheese (made from sheep milk)
- (5) Vardar Basin
 - (a) Importance of location
 - Trade route to Thessalonike
 - (b) Industries
 - Farming
 - Herding—sheep and cattle
- (6) Danube Valley
 - (a) Most densely populated region of Yugoslavia
 - (b) Climate—Continental
 - (c) Leading industry—farming
 - Tractors and farm machinery can be used here and nowhere else in Yugoslavia
- (7) Belgrade, the most important city, is situated in this region
- (8) Minerals

3. ALBANIA

- a. By studying the physical map the pupils tried to discover why the Albanians are an isolated people
 - (1) Mountainous region—so rough that parts can be reached only by narrow trails
 - (2) Because they are cut off from the rest of the world they must supply their own needs
 - (a) People herd goats and sheep (animals well suited to the mountain)
 - (b) Woolen cloth is woven by hand in the homes
 - (c) Corn, fruit, wheat, and tobacco are raised in mountain valleys
- b. Adriatic Lowland
 - (1) Mediterranean climate
 - (2) Land used for olive groves and vineyards

4. BULGARIA

- a. Divided physically into four regions
 - (1) Danube Valley
 - (a) Farming—fertile soil
 - (b) Crops—corn and wheat
 - (2) Balkan Mountain Area
 - (a) Mountains rounded and worn down
 - (b) Farming in valleys
 - (c) Sheep and goat raising on rougher lands
 - (3) Rhodope Mountains (Rhodope means “rose view”)
 - (a) High mountains
 - (b) Industry—sheep and goat raising
 - (4) Maritsa River Basin
 - (a) Mild sheltered region with a Mediterranean climate
 - (b) Raising of silkworms—important industry
 - (c) Rose Garden of Europe
Perfume—“Attar of Roses”
- b. Bulgaria is not a great trading country
 - (1) Varna—seaport on Black Sea
 - (2) Few railroads because it is difficult and expensive to build through mountains
- c. Sofia—Capital
Owes growth to its location in a mountain valley on an important railroad

5. GREECE

- a. Geography makes it difficult for Greece to become a strong, prosperous nation
 - (1) One-third of surface is a wasteland

- (2) No oil or coal is found here so trees have been recklessly cut to make charcoal for fuel
- (3) Pastures are too dry for cattle-raising
- b. Cities of Greece
 - (1) Athens—Importance in history
 - (2) Piraeus—Foreign trade
 - (3) Thessalonike (Salonika)—Southern terminus of Yugoslavian Railroad
- 6. TURKEY
 - a. Geographic position
 - (1) Turkey on both sides of the water bodies which connect the Black Sea with the Mediterranean
 - (2) Istanbul (Constantinople)—The Balkan terminus of the Berlin to Baghdad Railroad, where “East meets West”
 - B. Understanding:
 - 1. Because most of the people are cut off from world trade, they seek the necessary things of life in their immediate vicinity, using the few things nature has provided for them.
 - 2. We must not judge the Balkan people by the same standards as we would judge the people of the United States, but we should judge them by what they are doing with the resources with which nature has provided them.
 - 3. The Balkan people have developed their industries to a limited degree, but there is a possibility of future development.
 - 4. A mixture of races, as well as the rugged topography, helps to keep the Balkan people from uniting. These conditions, together with the desire of various peoples for equal rights, are the causes of critical situations in the Balkans.

III. *Pupil Learning Experiences*

- A. We read stories of Balkan people.
- B. We listened to news items concerning the Balkan Countries
Iron Curtain
Marshall Plan
- C. We found pictures of activities in the Balkans. (These were mounted and displayed.)
- D. We cooked a Balkan dish to eat with our lunch at noontime. A student whose grandmother migrated from Bulgaria gave the class the following recipe:

BULGARIAN STEW

1. Heat oil in a frying pan. Into this hot oil put one garlic bean and sliced onions. Add stewing lamb cut into cubes. Let this cook until it is brown. Season with salt and pepper.
 2. Add tomatoes. Cook until tomatoes are thick.
 3. Add cubed potatoes. Let mixture simmer for one hour.
- E. One boy constructed a model ferris wheel. (The ferris wheel is said to have originated with the Balkan gypsies.)
- F. We dressed dolls in bright Balkan costumes.
- G. We wrote letters.
- H. We made a map with salt and flour, showing the different regions in the Balkans.
- I. We drew a frieze showing how different people live in different parts of the Balkans.
- J. We packed "School Packages" to be sent to the school children of Greece. (This was suggested by the children.) One of the children contacted a church group to get the information, and each child contributed an item for these boxes. The boxes were packed and sent to Church World Service Center, New Windsor, Maryland.
- K. We searched for limestone which was used in our experiment to show that limestone absorbs water readily.
- L. We made a map of salt and flour, to show the different land elevations.

IV. *Concepts developed*

A. Locational and essential pictorial concepts

- | | |
|--------------------------------|--------------------------------|
| (1) Dalmatian Coast | (8) Bosphorus |
| (2) Danube Valley | (9) Beograd (Belgrade) |
| (3) Dinaric Alps | (10) Istanbul (Constantinople) |
| (4) Pindus Mountains | (11) Thessalonike (Salonika) |
| (5) Morava-Vardar Valley | (12) Sofya (Sofia) |
| (6) Berlin to Baghdad Railroad | (13) Athens |
| (7) Dardanelles | |

B. Vocabulary Concepts

- | | |
|-----------------------------|----------------------|
| (1) "Pocketed Peoples" | (5) "Attar of Roses" |
| (2) "Bridge Lands" | (6) Bazaar |
| (3) "Powder Keg of Europe" | (7) Corridor |
| (4) "Rose Garden of Europe" | (8) Free port |

C. Geography understandings acquired during the study of the unit by the pupils.

1. Using pertinent pictures, printed material, and maps (physical, rainfall, vegetation, temperature) the children achieved some definite realizations.

- a. Because of the many differences people in various parts of the same peninsula differ in ways of living and learning.
- b. Each group acquires the necessities of life according to what nature has provided for them. (In listing the necessities of life—food, clothing, shelter, transportation, tools, and recreation were considered.)
- c. Because of natural conditions, each group of people has developed its own standard of living, thus making it very difficult for the Balkan people to unite into one large nation as have the various sections of our own country.
- d. While the Balkan people have many minerals, they cannot smelt the ore on a large scale because of the lack of coal, oil, and developed water power. Little is exported because of the difficulty of transportation.

D. Attitudes and Appreciations

1. Feeling of friendliness toward people who because of their natural environment live differently from the way we live.
2. Understanding why people live as they do develops a peaceful attitude and respect toward other people. Lack of this understanding causes quarrels which may lead to war. This has happened often in the Balkans.
3. The answer which our class received from the Ambassador of Greece seemed to bring the children into a personal relationship with these people. To them the letter was a real message. Because of this personal contact, the attitude of our class will always be one of understanding and friendliness toward Greece and its people.
4. Building up respect for other people who live differently from us.
5. Acquiring a wholesome attitude toward people of our own community who differ in religion, nationality, and race. Different groups in the Balkans live differently because of different situations; so people in our community live differently because their everyday life situations differ.

E. Specific student growth and outcomes acquired by the children:¹

1. New Concepts
 - a. Vocabulary concepts
 - b. Place concepts
 - c. Geographical relationships of nature and culture items
 - d. Problems confronted in the Balkan Countries

¹ See Pupil Learning Experiences, III A-L, pp. 104-105.

2. Functional information gained
 - a. Personal contacts by letters
 - b. Tie-in with local, state, and national localities
3. Indications of the *strengthening of democratic beliefs and attitudes*
 - a. Development of human relationships within our own school and community, such as sharing our own talents and material resources (at home, in church, and in the classroom) for the benefit of the members of the classroom group
 - b. Decision and action, based on *a scientific approach to study the whole problem carefully*, such as the relationship of nature and human items
 - c. Increasing each student's *sense of responsibility*
 - (1) As an individual
 - (2) As a member in one or more groups
 - d. Increasing the faith of cooperative thinking as a means of improving life
4. *Use made of opportunities to develop critical thinking*
 - a. Careful judgment of the Balkan people
 - b. Formulating opinions about the Balkan region
 - c. Asking questions, and searching for answers
5. Help pupil received 'in *interacting with his own environment*'
 - a. Studying by himself
 - b. Studying as a member of a group
 - c. Learning a better use of leisure time
 - d. Developing better attitudes toward fellow workers of his own school and community
6. Strengthening character

F. Testing

We use the objective type of test consisting of:

1. True-false statements
2. Selection
3. Matching nature and culture items
4. Picture items—recognition of area

G. Answering questions asked by pupils at the beginning of unit

V. Materials

A. PUPILS' BIBLIOGRAPHY

1. Basic Text
Our European Neighbors, by J. Russell Smith, 1934, pp. 173-182
2. Reference Books
Nations Overseas, by Atwood and Thomas, 1946, pp. 268-279
Old World, Past and Present, by Campbell, Webb & Nida, 1937, pp. 472-475

- Living Across the Seas*, by McConnell, 1934, pp. 225-230
Our World Today, by Stull and Hatch, 1931, pp. 339-360
South American and Old World Continents, by Atwood and Thomas, 1931, pp. 253-255.
The Earth and Its People, by Atwood & Thomas, 1931, pp. 253-255
Nations and Neighbors, by Packard & Sinnott, 1931, pp. 454-460
Nations Beyond the Sea, by Atwood & Thomas, 1930, pp. 246-254
Geography of Lands Overseas, by McConnell, 1946, pp. 158-160
Neighbors Across the Sea, by Carls and Sorenson, 1950, pp. 161-187
The Old World and Its Gifts, by Meyer-Hamer-Grisso, 1950, pp. 438-443
Neighbors on Our Earth, 1950, pp. 286-299

B. TEACHER'S BIBLIOGRAPHY

- Europe*, A Geographical Survey by I. F. Bogardus, 1934, pp. 587-628
Europe, by Samuel Van Valkenburg and Ellsworth Huntington, 1935, pp. 428-448, 533-543
Highlights of Geography—Europe, by David Starr Jordan and Katherine Dunlap Cather, 1925, pp. 167-173

C. OTHER MATERIAL

World Almanac (latest edition)

D. COMMUNITY RESOURCES

Public Library

Church

VI. Questions asked by pupils

1. Why are there so many peasants in the Balkan Peninsula?
2. Of what material are their homes made?
3. What has nature provided for the people to help them make a living?
4. Why are there no trees on the Adriatic Coast of the Balkans when the rainfall map shows there is plenty of rain for trees?
5. Why does it seem impossible for the Balkan people to become united? Did nature keep them from uniting, or are the people responsible?
6. The Vardar Valley and the Danube Valley are near each other. Why haven't they been connected by a canal?
7. Why are the Balkan farms small?
8. What industries are carried on in the mountains?
9. How is perfume made?
10. Why are there so few roads?
11. Why is the mule used for transportation?
12. I read that many countries want the Balkan Peninsula. Why?
13. Why are the people jealous of one another? Why do they quarrel?
14. Why aren't the Albanians cooperative? J. Russell Smith says they are not.
15. Why is there little mining when the map shows there are plenty of minerals here?
16. What does the word Balkan mean?
17. Are these countries densely or sparsely populated?
18. Have the people developed their natural resources?
19. Why are there so many small countries when they could be united?
20. Why can corn be grown in one section and not in another?
21. How do the Balkan people spend their time?
22. Why is every farm called a factory?
23. Because it is mountainous, are the people conserving the soil by planting trees in the manner we studied about in Bohemia?
24. Why do the Balkan people wear bright clothing?
25. What might the Balkan people do to make themselves prosperous?

SECTION 2

GRADE EIGHT**HOW IS MAN INFLUENCED BY GEOGRAPHIC CONDITIONS?****Scope**

World pattern concepts should be developed in this grade in reference to the local community. As a result of previous learnings, the students have accumulated geographical concepts of many of the regions of the world. They are now sufficiently mature to grasp the concept of their immediate community in relation to the world.

A number of world patterns are possible, such as a world pattern of work regions or a world pattern based on climatic regions. Other possible world patterns are population, drainage, economic, human use, cultural region, soil, vegetation cover, distribution of land forms, and the distribution of natural resources. *The student should see the total picture of man's activities in his own natural surroundings, beginning with his home region and expanding into a definite world pattern.*

Sequence

Suggestive unit problems are included which can be used in building world concepts. Only suggestive titles are given, so that the teacher and students may choose other problems pertinent to individual and group needs. If these problems do not meet the needs of youth of the home community, other functional units which build world patterns may be chosen in order to build world citizenship, through desirable attitudes and behaviors.

In this section there are units using various world patterns:

1. A unit dealing with the home community and its interdependence with the world
2. A unit based on a climatic region
3. A unit based on an industry

Resource Material in the Community

The curriculum must utilize the resources of the community if it is to be effective. School journeys and visitations make available abundant material that can be used to visualize and vitalize instruction. A teacher can make his work effective by bringing pupils into direct contact with objects and phenomena about which they wish to learn and by exposing them to situations where they can see, handle, and meditate upon the things with which their study is concerned.

A teacher plans with pupils a field trip or a visit to a natural or a cultural region of the community. The things observed by the students enrich the subject matter they are studying. The teacher and students then decide on the merits of the trip.

Below is a list of places to visit. It is only a partial list. The availability of this list will vary with city, suburban, and consolidated high school communities.

I. *Examples of Places to Visit*

- | | |
|--|---|
| 1. Dairy | 14. Aluminum plant |
| 2. Sewage disposal plant (city) | 15. Recapping factory |
| 3. High school sewage disposal system (country) | 16. Cleaning and dyeing establishment |
| 4. Coal mine (Some large coal companies readily grant permission for children to be around the mines. Even a small country coal "bank" with a few students and an experienced teacher will provide a good learning opportunity.) | 17. Photographic studio |
| 5. Reservoir | 18. Automobile service station |
| 6. Strip mine | 19. Local print shop |
| 7. Machine shop | 20. Slaughter house |
| 8. Lumber mill | 21. Hospital |
| 9. Tannery | 22. Nursery |
| 10. Farms | 23. Greenhouse |
| 11. Paper mill | 24. Radio broadcasting and transmitting station |
| 12. Ice plant | 25. Leather factory |
| 13. Steel plant | 26. Contour strip farm |
| | 27. Zoo |
| | 28. Pottery plant |
| | 29. Museum |
| | 30. Airport |
| | 31. Bus terminal |
| | 32. Newspaper plant |
| | 33. Paper plant |
| | 34. Glass factory |
| | 35. Historical site |

II. *Natural Areas of Use to the Teacher*

- | | |
|--|--|
| 1. Strip mine and road cut | 12. Animals in the community |
| 2. Lime kiln | 13. Plants in the community |
| 3. Rock formations—limestone and other outcrops, caves | 14. Park |
| 4. Swamp | 15. Game refuge |
| 5. Lake | 16. Unusual objects of natural history |
| 6. Stream | 17. Rivers |
| 7. Spring | 18. Forests or woodlot |
| 8. Dam (built or being built) | 19. Stone quarry |
| 9. Well | 20. Slag pile, slate dump, spoil piles |
| 10. Mountain | |
| 11. Field | |

Suggested Unit Titles

1. How is man influenced by geographical conditions (Geography of the United States and World Relations)?

2. How are the work activities in my community influenced by the natural environment?
3. How is an industry of my world community related to the natural environment?
4. What do the industries in my world community contribute to other peoples of the world?
5. What do the industries of other areas of the world contribute to our community?
6. How has industry changed the life and scenery of my community?
7. How do the mineral deposits in and around various areas of the world influence our standards of living?
8. What commodities produced in our community contribute to ways of living of other peoples?
9. How are we dependent upon our natural environment for our food and clothing?
10. How are the problems of travel and transportation within various regions related in part to an outgrowth of natural environment?
11. How are transportation lanes of the United States and other world areas influenced by topography?
12. How do industries help to determine the routes in different places of the world?
13. How has modern transportation helped unite our world?
14. What part does the soil play in determining how I shall live?
15. What part does the vegetation pattern of a region determine how man utilizes the land?
16. How is life in general in different world communities influenced by the different types of climate?
17. How is man's living affected by the amount and type of precipitation?
18. How do the wind belts of the world affect life in different areas?
19. How is the population pattern of my community related to the natural environment?
20. How has the population pattern of our country and other nations brought us into world relations?
21. How are man's health and energy related to his natural environment?
22. How do the cultural and natural patterns of the United States and the world arouse an urge to travel? How does this promote world relations?
23. How is recreation in my community explained in part by the natural environment?
24. What part do the playgrounds of my community play in international relations?
25. How have various types of buildings been influenced by the natural and cultural environment?
26. How is some of the art of my community and other areas explained by natural settings?

27. How was some of the music of the world inspired by nature?
28. How has man's adjustment to his environment been portrayed in literature?
29. How does the change in market values of products affect the lives of the people of my community?
30. How do international agreements bring my community into world relations?

Illustrative Units

These units may be readily adapted for local use.

- UNIT I: How Is Life Influenced by Different Types of Climate?
- UNIT II: How Is Industry in My Community Related to the Natural Environment?
- UNIT III: What Are the Work Activities in My Community?
- UNIT IV: How Can We Better Understand and Interpret the News?
- UNIT V: What Should We Know About Transportation?
- UNIT VI: What Should We Know About Our Neighborhood?
- UNIT VII: How Does Conservation Affect Our Community and Our Lives?
- UNIT VIII: Where Do We Get Our Rubber?

NOTES

UNIT I

HOW IS LIFE INFLUENCED BY DIFFERENT TYPES OF CLIMATE?**I. *Introduction***

This unit deals with the humid subtropical lands of the United States located in Southeastern and Southcentral United States, together with similar world areas.

In formulating the plan to be followed in presenting the material, the following principles and objectives were considered.

A. PRINCIPLES

1. Children learn in direct proportion to their participation in learning activities.
2. Learning, in its essence, does not take place unless the individual shares in the initiating, directing, and controlling of the process.
3. If we expect children to acquire the ability to cooperate on a democratic basis in dealing with the problems and situations of life, then we must allow them to participate in group enterprises in the classroom.

B. OBJECTIVES

1. Attitudes
 - a. A democratic attitude of working with groups and an appreciation of the importance of each member in that group
 - b. A sense of the values of planning and evaluating one's own and others' suggestions and information
 - c. An inquiring attitude toward the importance of the southeastern and southcentral sections of the United States in relation to the rest of the country, and the importance of similar areas of the world
 - d. An appreciation of the interdependence of the various sections and people of the United States and the world
2. Abilities
 - a. To discover and evaluate material pertaining to the subject under discussion
 - b. To interpret and understand the natural conditions of the area and how they might help influence man's activity
 - c. To go before the class and give oral reports
 - d. To interpret information and maps
 - e. To work together as a group and as committees
3. Knowledge
 - a. The important crops, products, and activities
 - b. The location of the various cities and the reasons for their location
 - c. The location of the various farming and manufacturing regions and the natural reasons for these locations

II. *The Pupils Do the Planning*

A. ORGANIZATION

After the area of study was chosen, the class discussed how to attack the problem. It was decided that the majority rule would prevail. Decisions would be reached by popular vote. This in turn led to a discussion of the role of the minority in a democracy. After considerable discussion by the members of the class the point was made that the minority does have the opportunity to try to persuade other people to follow their thinking, but the minority must abide by the decision of the majority.

Two periods were devoted to free and open planning by the pupils as to the desired method of study. The teacher during this time played the role of the leader, attempting to aid the pupils in evaluating the suggestions made and selecting the best plans.

B. ACTIVITIES CHOSEN

1. The class would like to conduct this study in the form of an imaginary trip.
2. Each pupil would keep a diary of the trip in the form of a booklet to be handed in at the conclusion of the study.
3. Committees would be appointed to present the different aspects of the trip to the class. Each person was to be on one committee.
4. The question arose as to what committees would be necessary. Again after free discussion it was decided to appoint a group to meet with the teacher to plan the trip.

C. OBJECTIVES

1. To gain an understanding of how the natural conditions affect man's activities in this area
2. To discover how and why this section of the country depends on other sections of the United States
3. To learn what this section supplies to the other parts of the country
4. To study the important crops, products, and activities
5. To find where the various farming and manufacturing regions are located, and the relationships of these locations to their respective natural environments

III. *The Pupils Prepare for the Trip*

A. COMMITTEES APPOINTED

This part of the program was a pupil-planning activity with the teacher acting as an adviser where help was needed. The following committees met and planned their part of the program:

1. The planning committee (Selected the routes we would follow, the cities where we would stop, the hotels in which we would

stay over night, and the method of travel. After comparing costs, we decided to travel by bus.)

2. A committee to report on the peanut lands as we passed through them
3. A tobacco committee
4. A cotton committee
5. A Florida committee (farming)
6. A Florida committee (points of interest)
7. A committee reporting on the activities of the Gulf States
8. A committee reporting on the activities of the humid subtropical area of the state of Texas
9. A committee reporting on the manufacturing activities in these regions
10. A committee reporting on the minerals found in this area
11. A committee reporting on climate and daily weather conditions of this region
12. A committee reporting on the major cities we passed through

B. MATERIALS AVAILABLE FROM

1. *Holiday* and *National Geographic* magazines pertaining to the area of study
2. Selected geography reference books
3. Encyclopedias
4. Picture files
5. Motion pictures (both sound and silent) and filmstrips

IV. *The Trip*

The trip itself was actually accomplished through the reports of the committees. The group working on cities reported on the major cities which we passed through. A peanut committee gave their report when we passed through the important peanut lands, and so on until we had covered the areas of importance.

The reports for the most part were good, making splendid use of visual materials and keeping in view the general objectives as stated above. An example of the work was the report of the group reporting on peanuts. The theme of the report followed the idea that the class had stopped at a peanut farm, and the farmer had been kind enough to show them around and explain the work to them. Through the use of pictures, the planting, growth, and harvesting of the plant were described. Peanuts were passed to the class so that they might study the various parts. Through a discussion with the farmer (played by a member of the group), the problems of the peanut farmer were brought out. This discussion also brought

to light the farmer's appreciation of the work and contribution of George Washington Carver. Finally, a trip with the planter to the market developed an appreciation of the many uses of the peanut and its contributions to our daily life.

In accordance with the desire of the class to keep a diary of the trip in booklet form, ample time was given for discussion of each report and also for note-taking.

At the conclusion of the trip, several periods were devoted to work on the booklets. The requirements as set up by the class for the booklets included: (1) maps—general route of the trip, locations of the crops and products, general topography, (2) a brief write-up on each report. Additional maps, graphs, and pictures were optional.

As the study came to an end, a test, both objective and subjective, was administered to determine the results of the study. When these results were compared with test marks on other units of teacher-dictated study, the comparison showed a very definite trend toward higher grades.

V. *Evaluation of the Unit of Work*

- A. A cooperative situation between the teacher and the pupils prevailed throughout the study. In addition, the pupils developed a cooperative attitude among themselves.
- B. The pupils had the opportunity to work together on committees, thus meeting a situation where the need for planning and cooperation was necessary.
- C. Some simple fundamental principles of democracy were demonstrated and applied.
- D. The pupils were part of the learning situation, by actually participating in the planning and by having a part in working out the unit.
- E. Development of abilities—The pupils showed growth in the following abilities:
 - 1. Organizing information gained by reading supplementary texts, pamphlets, and magazines
 - 2. Meeting lifelike situations
 - 3. Presenting material orally before the class
 - 4. Profiting from the work and reports of others
- F. An appreciation of the problems of the section of our country having humid subtropical climate was gained.
- G. A great amount of factual knowledge of the section studied was gained, as evidenced by the results of testing.
- H. An appreciation was gained of the needs and the reasons for interdependence of the various sections of the United States.
- I. A further understanding of the geographic relationships between man and his environment was gained.

UNIT II

**HOW IS INDUSTRY IN MY COMMUNITY RELATED TO THE
NATURAL ENVIRONMENT?***Evidence of Need and Pupil Interest*

- A. Introduced by pupils whose fathers and brothers worked in a nearby sawmill
- B. Pupil interests developed by group discussion:
 - 1. What lumber-producing trees are grown in this area?
 - 2. Where do the logs come from?
 - 3. What kind of trees are cut for logs?
 - 4. How are the logs sawed?
 - 5. What machines are used?
 - 6. What kind of lumber is made?
 - 7. What is done with the lumber?
 - 8. What is done with the sawdust?
 - 9. What is done with the part not used for lumber?
 - 10. How many men are employed?
 - 11. What will happen when all the trees are cut?
 - 12. Are all the trees cut? If not, what trees are cut?
 - 13. Are more trees planted?
 - 14. If all the trees in this county are cut, what will happen to our recreational areas?
 - 15. Is it possible to conserve our forests and still make them useful?

Pupil Goals

- A. To become acquainted with different kinds of trees, uses of these trees, and different types of forests
- B. To realize and appreciate how forests are beneficial to man and to study the means for conserving them
- C. To realize our forests have been seriously depleted
- D. To discover what elements of the "nature" environment explain in part the presence of forests
- E. To study some types of misuse that needlessly destroy forests and increase the need for conserving forests
- F. To learn and understand good management problems, conservation of old growth timber, and denuded timber areas
- G. To know what results we may expect from good management and conservation practices in forestry
- H. To show how the commercial operator could practice better conservation methods and increase the value of growing timber
 - 1. To show that farm woodlands are important and how the problems of managing them differ from those of industrially owned lands

2. To discuss whether the privately owned woodlands should not be publicly regulated—that is, by some sort of government control
3. To prove that better profits are realized by practicing conservation methods
- I. To establish an attitude toward conservation that will continue throughout life

Content Outline

- A. Getting acquainted with the local forests as a means of understanding conservation
 1. Kinds of trees
 2. How trees grow
 3. How trees reproduce themselves
 4. How a new forest develops
 - a. Virgin forest
 - b. Second growth forest
- B. How forests are valuable to man
 1. Supply valuable wood products (wood pulp, rayon, cellophane, matches, lumber, plastics, naval stores, pencils, furniture)
 2. Furnish employment
 3. Provide opportunities for recreation
 4. Protect wildlife
 5. Affect climate
 6. Protect and enrich the soils, prevent erosion and floods, regulate stream flow
 7. Provide grazing
- C. Abuse of our forests
 1. Forest depletion
 2. Man's part in forest depletion
 3. Logging industry
 4. Forest fires
 - a. Damage by fires
 - b. Causes of fires
 - c. Organized fire control
 - d. How fires are extinguished
 5. Destruction of forests by disease
 6. Destruction of forests by insects
 - c. Effect on wildlife
- D. Management and conservation of forests
 1. Purposes and problems of management and conservation
 - a. Need for forest management
 - b. Cutting methods
 - c. Cutting even-aged stands
 - d. Cutting many-aged stands
 - e. Sustained yield
 - f. Cutting cycles
 - g. Forests not utilized for lumber
 2. Management of second growth timber
 - a. How nature replaces forest growth
 - b. How man can assist nature
 - c. Releasing
 - d. Thinning
 - e. Improvement cuts

3. Management of denuded timber areas
 - a. Reforestation
 - b. Successful planting practices
 - c. Reforestation and wild-life
 - d. Planting, shelterbelts, and windbreaks
 - e. Benefits derived from above (a to d)
 - f. Prairie States forestry project
 - g. Snowbreaks
- E. Results to be expected from conservation methods
 1. Improved cutting practices
 2. Forests restored or conserved
 3. Diversified forest products
 4. Elimination of waste in the logging industry
 5. Problem of conserving forests
 6. Denuded lands to be reforested
 7. Forest lands to be placed and maintained in productive condition so that they will perpetually serve the needs of mankind
- F. Forests of the United States and the world
 1. Forest areas of the United States
 2. Hardwoods of the tropics—a potential source of lumber
 3. Forests of the U.S.S.R.
 4. Forests of the temperate Southern Hemisphere
 5. Other forests of the world

Miscellaneous Activities

- A. Community contacts
 1. Visited nearby sawmills, discovered where lumber was secured, etc.
 2. Took field trip to local State park to study type of trees, recreation facilities, and wildlife.
 3. Listed names of trees which grow in locality and characteristics that identify each species.
 4. Counted annual rings on a pole, post, etc., and analyzed as to width and number of rings.
 5. Planted trees.
 6. Visited virgin forest in the county.
 7. Visited a well-managed second growth forest to observe types of trees, age, cover between trees, etc.
 8. Visited a fire tower to find how forest fires are located.
 9. Heard lecture by State forester on prevention and control of forest fires.
- B. Other learning activities
 1. Made maps showing forest areas of the United States and the world.
 2. Drew maps of forest area in county, showing State forest land and virgin forests.

3. Made graphs showing the production and consumption of wood for timber and fuel in the United States.
4. Heard talk on our resources in county.
5. Arranged table display of wood products.
6. Made a bar graph showing the number of cattle grazing lands of the world.
7. Built model of a farm showing effects of deforestation.
8. Drew large mural and posters of "Burned Over Forest Areas," "Keeping the Forest Green," "Fire Prevention."
9. Took photographs of burned-over areas to study damage done by fires and how fires may be controlled.
10. Pupils reported on tree disease control.
11. Gave talks on insect destruction.
12. Pupils who live on farms told how their farm woodlands are managed.
13. Pupils reported on visits made to different areas, explaining what was observed, how conservation methods were or would be practiced.
14. Debate on whether forests should have some sort of government control.
15. Groups of pupils volunteered to report phases of conservation relating to forestry that could be practiced in our locality, elimination of waste in the logging industry, and improved cutting practices.
16. Boys sent for State seedlings for farm woodland.

Culminating Activities

- A. Assembly Program: Talks by pupils on various phases of conservation.
- B. Pupils entered tri-county forestry contest. One girl won first prize for her essay on "Forest Conservation." She received as a prize ten dollars and had the opportunity to broadcast her essay over a local radio station.
- C. Exhibit of forest products.
- D. Display of large posters showing the results of forest fires on soil, trees, and wildlife. One boy won first prize for his art poster on "Keep the Forests Green."

Evaluation by Pupils

Let the children speak for themselves:

1. "I think I've read twelve books."
2. "I never knew we had any virgin forests in our country."
3. "Now I can walk through the woods and it's fun to identify trees. Bobby and I have fun on Saturdays doing that."
4. "Pop says I can have space on our farm land to plant some of those free State seedlings."

5. "We are going to be more conscious of the fact that forest fires are extremely destructive."
6. "I'm going to help Dad with our farm woodland from now on."
7. "Our forests mean so much more to us now. Why can't we interest more grownups in conserving them, too?"
8. "If conservation is part of geography, I'm sure we all say it is our favorite subject."

Teacher Evaluation

- A. An appreciation of the natural resources as the basis of man's industrial and commercial development
- B. Ability to read, understand, and interpret maps, charts, and graphs
- C. Ability to understand and interpret the interrelationships shown by pictures
- D. Ability to construct maps and graphs as a device to portray relationships
- E. An appreciation of the relation of the natural environment to the use of leisure time
- F. Appreciation of the work patterns of the world in relation to the natural environment
- G. An appreciation of the forests of the world in relation to man's individual, social, economic, and political development
- H. An attitude of fairness in the ownership and use of the world's natural resources

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Films Shown

Once Upon a Time
Stop Forest Fires
Grasslands
Wetlands

Timber Is a Crop
Green Harvest
Trees and Men

NOTES

UNIT III

WHAT ARE THE WORK ACTIVITIES IN MY COMMUNITY?*Objectives***A. GENERAL**

Understandings and appreciations of the geographic character of Carroll Township and its contributions to the achievements of specific essential needs of youth

B. SPECIFIC

1. A working knowledge of how to use community resources as a source of knowledge
2. The ability to interpret work activities in their relation to nature items by firsthand interpretation of them through experience
3. A realization of the problem of soil conservation and a determination to help solve these problems
4. A knowledge of the population pattern of Carroll Township and why this pattern is unevenly distributed
5. A realization that Carroll Township depends upon surrounding areas and other regions of the world
6. A knowledge of how the transportation facilities of Carroll Township aid the people.

Introduction

At the end of last year, Grade Seven, the students expressed a desire to begin their eighth year by studying their local community and its relation to the rest of the world. The first item of business was an informal discussion. After this discussion the class and the teacher set up the problems for study. Part of this was done at the end of their Grade Seven work so that those who wished to do so could be working on the unit during the summer.

ORGANIZATION OF MATERIALS—CHART A

<i>Problems Set Up by Students</i>	<i>Approach to the Problems</i>	<i>Geographic Understanding</i>
<p>1. How do the natural conditions existing in your township contribute to the way people live?</p> <p>a. Surface and soil make-up, including coal deposits</p> <p>b. Rainfall and temperature of your township—length of growing season</p> <p>c. Water supply of your township</p> <p>d. Drainage pattern</p>	<p>1. Field trip planned by students to study soil conditions at first hand. See Chart B.</p> <p>2. A committee wrote to weather bureau for information. They studied rainfall and temperature maps, measured and recorded temperature and rainfall.</p> <p>3. Another committee made a survey of the water supply in each surrounding community.</p> <p>4. Others studied topographic map of Carroll Township (new tool of learning) and found names of different streams.</p>	<p>1. Carroll Township, Washington Co. (used in this unit), is in the Appalachian Plateau, which has been dissected by years of erosion.</p> <p>2. Underlying rocks are sedimentary (shale, limestone, and sandstone).</p> <p>3. Rainfall average is 35 inches. Growing season is from 5 to 5½ months.</p> <p>4. Water supply is from cisterns, wells, springs and city water (from Monongahela River).</p> <p>5. Elevation ranges from 750 ft. to 1,200 ft., thus giving a relief of 450 ft. Except for a few flat areas the drainage is good.</p> <p>6. Major streams are Pigeon Creek, Dry Run, and Taylor's Run, draining into the Monongahela River.</p>
<p>2. What are the major industries in your township and why are they so located?</p>	<p>1. Committees or representatives volunteered to visit each of the following and interview a person who could tell them about these industries. (See Chart C)</p>	<p>1. Presence of coal-bearing strata in this area.</p> <p>2. Grass-covered hills too steep for cultivation left to pasturage and forest crops.</p> <p>3. Valleys of alluvial soil and areas underlain with limestone.</p>

<i>Problems Set Up by Students</i>	<i>Approach to the Problems</i>	<i>Geographic Understanding</i>
	<ul style="list-style-type: none"> a. Coal Company b. Dairy farm c. Market garden d. Chemical plants e. Brick factory f. Slag industry 	<ul style="list-style-type: none"> 4. Location away from urban area—good water drainage—good transportation facilities. 5. Presence of shales for brickmaking; nearness to mines for fuel and transportation facilities. 6. Nearness to mills which have slag as a by-product.
3. Why is strip mining a newer extractive industry?	<ul style="list-style-type: none"> 1. A study of strip mining was made. Miners were interviewed. 	<ul style="list-style-type: none"> 1. The mining industry of Carroll Township is a dying industry. As the mines are being worked out, coal near the surface is removed by the "open pit" method.
4. Is there a conservation program in Carroll Township?	<ul style="list-style-type: none"> 1. Different agencies and organizations, such as the Grange, were contacted and their programs studied. 2. Conservation books and pamphlets were studied to find the causes of erosion. 	<ul style="list-style-type: none"> 1. The Grange encourages contour farming to save our soil. 2. Many eroded areas are found in Carroll Township because: <ul style="list-style-type: none"> a. Many trees were cut b. Careless farming methods were employed c. Atmospheric pollutions from nearby industries killed much vegetation. 3. We can help the conservation program by: <ul style="list-style-type: none"> a. Thoroughly studying the problem b. Discussing the problem with adults

Chart A—Continued.

<i>Problems Set Up by Students</i>	<i>Approach to the Problems</i>	<i>Geographic Understanding</i>
5. How do the transportation facilities aid in the development of Carroll Township?	<ol style="list-style-type: none"> 1. A survey was made to find the transportation facilities of Carroll Township. 2. The Road Board was visited by a committee. 	<ol style="list-style-type: none"> 1. Railroads, improved roads, and riverboats are used for transportation. 2. Kinds of roads in Carroll Township are <ol style="list-style-type: none"> a. State b. County c. Township
6. Why are there so many new homes being built in Carroll Township?	<ol style="list-style-type: none"> 1. Interviews were held with people building new homes. 	<ol style="list-style-type: none"> 1. Increasing population (shown by 1950 census) 2. People leaving cities because of air pollution 3. Good roads and speedy transportation make it possible for them to travel to work in the cities.
7. How does Carroll Township depend upon the rest of the world? (See Chart D)	<ol style="list-style-type: none"> 1. Survey of foods was made and sources of these foods recorded. 2. Survey of clothing, furniture, and items in our everyday life was made to determine to what extent we are dependent on other people in various parts of the world. 	<ol style="list-style-type: none"> 1. People of Carroll Township depend upon other places for food and clothing.

FIELD TRIP BY ENTIRE CLASS. TIME 45 MINUTES—CHART B
Man's Adjustment to Soil Conditions near Our School

<i>Specific Objectives</i>	<i>Observations</i>	<i>Research as a Result of Field Trip</i>	<i>Associated Learnings</i>
1. To study the rock and soil formation of our immediate area	<ol style="list-style-type: none"> 1. A newly made cut for a roadway was studied. <ol style="list-style-type: none"> a. Rocks were in layers b. Layers examined Sandstone Shale Outcropping of coal Shale Limestone 	<ol style="list-style-type: none"> 1. Physiography and other science books were used for study of rock strata. 2. Geography books were consulted to discover in what physiographic region we live. 3. A study was made of how rocks become soil. <ol style="list-style-type: none"> a. Water freezing and thawing b. Weathering c. Effects of roots and plants in rock crevices d. Chemical changes 	<ol style="list-style-type: none"> 1. Science Study of sedimentary rocks 2. Language Oral explanation
2. To look for evidences of erosion	<ol style="list-style-type: none"> 1. Rocks were handled to see the effects of weathering 2. Gullies were studied 	<ol style="list-style-type: none"> 1. Conservation books were searched to find: <ol style="list-style-type: none"> a. Causes of erosion b. What can be done to overcome the growing erosion 	<ol style="list-style-type: none"> 1. Science How valleys were formed 2. Conservation Causes and prevention of erosion
3. To observe man's use of the land	<p>From the road the land uses were plainly seen</p> <ol style="list-style-type: none"> 1. Top of hill—evergreen trees 2. Below evergreen trees — orchard 3. At lower elevation a very productive garden 	<ol style="list-style-type: none"> 1. A committee who lived in the eroded area examined the soil to find its make-up 2. References were found which explained the best soil conditions for evergreens, orchards, and gardens 3. A search was made for reasons other than soil conditions which accounted for these land uses 	<p>English</p> <ol style="list-style-type: none"> 1. A written report of our field trip 2. A written evaluation of our trip

AN EXAMPLE OF AN INTERVIEW—CHART C

Visit to a Chemical Company

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DEPARTMENT OF PUBLIC INSTRUCTION

<i>How Appointment Was Made</i>	<i>Questions Set Up by the Class</i>	<i>Mr. Boyles' Answers to Questions</i>
A student reported to the class that he had made an appointment for his committee to meet the superintendent of a chemical plant.	1. Why was this industry established here?	a. Abundant supply of coal b. Adequate supply of labor c. Favorable freight rates (formerly, not now).
	2. What nature factors contributed to its being here?	a. Flat land suitable for erecting the factory without excavations b. Pigeon Creek originally used as a source of water supply (cannot be used now because of pollution).
	3. What fuel do you use?	Coal. It is brought by truck from Belle Vernon. We don't use coal from Carroll Township; we must have coal with a high B.T.U.
	4. Of what use are your products?	Our products are used in the manufacturing of rayon and cellophane, rubber vulcanizing materials, agricultural fungicides and insecticides.
	5. Where are these products shipped? How are they shipped?	Niagara Falls, Akron, and many parts of the United States east of the Rockies. They are shipped in 5-, 10-, and 55-gallon drums, as well as in tank cars.
	6. How many men do you employ?	Thirty-five; about half are residents of Carroll Township.
	7. How do other companies fit into your program?	Our chemicals are essential in the manufacture of rayon, tetrachloride, and cellophane.

<i>How Appointment Was Made</i>	<i>Questions Set Up by the Class</i>	<i>Mr. Boyle's Answers to Questions</i>
		We have about four competitors in the United States
		c. If carbon bisulfide were not available the manufacturers of the above products would have to find other processes for making their products.
	8. Where do you get your raw materials?	a. Michigan—Charcoal b. Texas—Sulphur c. Pennsylvania—Coal
	9. Are there any by-products?	No.

OUTCOMES

<i>Major Areas of Knowledge</i>	<i>Social Competence</i>	<i>Evaluation</i>
1. A realization that the chemical plant owes its existence in part to the natural conditions existing in Carroll Township	1. Acquiring the habit of seeking information by studying the industry near at hand	1. The class evaluated this means of learning as to:
2. An understanding of how other industries of the United States are dependent upon the chemical industry	2. Strengthening the ability to interview a person who knows about the industry 3. Satisfaction of sharing one's learnings with the class	a. The value of this information brought in by the committee b. The value of this type of learning to the individual or committee making the interview.

HOW CARROLL TOWNSHIP DEPENDS UPON THE REST OF THE WORLD—CHART D

<i>Problems of Dependence</i>	<i>Learning by Doing Activities</i>	<i>Some of the Items Used in Carroll Township</i>	<i>Why</i>
1. How do the people of Carroll Township depend upon other areas of the world for food?	<p>1. A visit was made to Tomlinson's grocery store. An itemized list of various foods was brought to the classroom by a committee.</p> <p>Each child was responsible for searching for the source of one item. In some cases it was relatively easy to find the source. In some cases it entailed the writing of letters to individual companies. When the report was made to the class, the student shaded the area on a large project globe.</p> <p>Note: Knowledge of a variety of work activities is essential. (Some of these data had been acquired by students in previous grades, but here a world pattern of this knowledge emerges for the first time.)</p>	<p>1. Canned peaches from California</p> <p>2. Sugar from Cuba refined in Philadelphia</p> <p>3. Dates from California and Iraq</p> <p>4. Cacao from French Equatorial Africa</p> <p>5. Oranges from California and Florida</p> <p>6. Rice from Louisiana</p> <p>7. Coffee from Brazil</p>	<p>a. Long growing season b. Continuous sunshine and irrigated fields</p> <p>a. Twelve months' growing season b. Heavy rainfall (40-80 inches) with short dry season</p> <p>a. Dry areas where irrigation is possible b. Water from Tigris-Euphrates furnishes water for dates shipped from Basra</p> <p>a. Heavy rainfall (40-80 inches) b. Calm belt with little wind c. Hot temperature</p> <p>d. Twelve months' growing season</p> <p>a. Mediterranean type of climate in California b. Juicy oranges from Florida, because of long, wet growing season</p> <p>a. Long, hot, damp growing season b. Frequent heavy rains c. Level areas, easily flooded</p> <p>a. Rich well-drained soil, rich in potash b. Air drainage on slopes of hills c. Heavy rainfall d. Short dry season for harvesting crops</p>

Chart D—Continued.

<i>Problems of Dependence</i>	<i>Learning by Doing Activities</i>	<i>Some of the Items Used in Carroll Township</i>	<i>Why</i>
		8. Herring from Norway	Cool waters of North Sea rich in fish Beginnings of some of these items had been acquired in previous grades but certain phases are new in this grade.
		9. Bananas from Honduras	a. Twelve months' growing season b. Heavy rainfall (60-100 inches) c. Lowland areas seldom reached by hurricanes
		10. Cloves from Zanzibar	a. Heavy rains brought by southeast trade winds b. Twelve months' growing season
		11. Tea from Ceylon	a. Fertile, well-drained soil b. Plenty of rain.

NOTE: Same procedure can be carried out with other commodities to show our dependence on different areas of the world.

UNIT IV

HOW CAN WE BETTER UNDERSTAND AND INTERPRET THE NEWS?*A Daily Newspaper Issued By A Geography Class**Preliminary Teacher Planning*

At the first meeting of this class, the students expressed a desire to study geography in a way which would allow each one to work at his own rate of speed. The students asked if the work might be arranged so that each one might work at an individual assignment which would contribute to one large piece of work. In short, they wished to have an activity program.

Several suggestions were made which would include the type of work they wanted but the one which seemed to appeal to most of them was the issuing of a daily newspaper dealing with the geographic aspect of the news. It was to be posted on the bulletin board beside a world map every day at the close of the class period. Tapes would lead from the articles in the paper to the country on the map to show the location of the news event. This plan seemed a very desirable one to the teacher because of the differences in ability of the individual members.

Objectives

The teacher set up her objectives as follows:

- A. To have the students learn to work cooperatively with others
- B. To have the students assume responsibility
- C. To have each student feel that his contribution was vital to the success of the whole
- D. To teach appreciation of the ability of some of the less capable members of the class
- E. To make the students conscious of world events and of the importance of these happenings to us
- F. To show how people and countries are influenced by geographic conditions

Orientation

"If we put out a daily issue of the paper, we'll need to do some planning so that everything will run smoothly. Has anyone visited the newsroom of any of our daily newspapers? What impression did you get while visiting there? What did you see?"

"What shall we put in our paper? The one thing which we want to remember is that we want to emphasize the geographic side of the news in our articles."

The students made suggestions as to what they believed should be in a paper of this type. A list of the different features was put on the board for reference later.

In the newsroom of our daily papers, who heads the whole organization? The editor-in-chief. In general, what would some of his duties and responsibilities be? He has several assistants who take part of his responsibilities, doesn't he? Whom shall we ask to be our editor? Shall we let him choose his assistant?

Activities

"Now let's decide what departments we will need and how many reporters it will take to handle the daily topics of each department. We shall want to know just what we may expect of each department. As we discuss the different ones, if you think you would like to work on that particular assignment, raise your hand and your editor will make a note of it and place you there. Everyone will have a definite piece of work to contribute every two days."

A. EDITOR AND CHIEF ASSISTANT

The editor makes the over-all plan of what the daily issue shall contain. This plan should be made out two days before the date of issue so that the teacher has a chance to check. He and his assistant will meet twice a week with the teacher before school to plan two or three issues in advance, with the exception of the news items. This will give the teacher a chance to make suggestions as to who will be the best to handle the particular assignments. (It is wise to block off a large piece of paper into squares. Opposite the student's name, write in his assignments for the week. Everyone can then see just when his deadline is on certain articles.)

B. NEWS ITEMS (Two students)

News Readers—These students select two or three interesting news items from the daily newspaper or from a radio broadcast and condense them into a sentence or two and hand them to the editor. They also are responsible for one assignment a week from the editor.

C. THE GEOGRAPHY BEHIND THE NEWS

Six reports are necessary for this topic. Under each news item, the above heading should appear and the geography of the country mentioned in the item should be given. The location, surface, climate, natural resources, reasons for the chief industries should be given. If possible have the reporters tell how the news item may have been influenced by the geography of the country.

D. CARTOGRAPHERS (Two students)

These students find the maps of the countries, cities, or sections mentioned in the news item. They are drawn or traced (according to the ability of the students) on a sheet which will be used for typing the article; it will be typed so that the map will appear in the middle of the news story.

E. FEATURE ARTICLES (Six or more)

1. Scientific article, such as the explanation of volcanoes, tidal waves, hurricanes, earthquakes, etc.

2. Travel news. This will feature resorts. Tell something about the climate of the region and its main attractions.
3. "Strange as It May Seem"—Unusual facts collected from atlas, etc.
4. Architecture. This includes sketches of the homes of the people living in these lands, with an article telling how the style of architecture was influenced by the geography of the country.
5. Interviews with people who have lived in foreign lands and are now living in our community.

F. GEOGRAPHY QUIZ (Two students)

Five questions daily. Answers for previous day's quiz given each day.

G. WEATHER REPORT

This reporter calls the Weather Bureau every morning for the temperature, humidity, and weather forecast for the day. (Can be obtained from the radio also.) This report was placed on the first page of the paper. Occasionally a weather map or climatic graph for some place mentioned in the news might be included.

H. SPORTS (Two sports writers)

Reports on any local games. Reports on any international contest. Once a week an article is written on the national sport of some country. Often the sport is influenced by the geography of the country.

I. LADIES' PAGE (Two reporters)

1. Explain how type of clothing and style are affected by the geography of the country.
2. Tell about the handicraft of the country. (The wood carving of Switzerland developed because of the long evenings and nearness of raw material.)
3. Sketch designs used in handicraft.
4. Design material for ladies' print dresses from ideas prompted by the study of the geography of certain countries, i. e., grapes of France, the palm trees of tropical lands.
5. Include recipes which are popular in the country described.

J. SCHOOL NEWS

One reporter interviews the principal on happenings of interest to the student body.

K. ART EDITOR AND ASSISTANT

Make interesting sketches of scenery, homes, people described in the article on "Geography Behind the News." Make sketches for the Travel News section.

L. ADVERTISING EDITOR

Writes up at least two advertisements for products exported by the countries described in the issue.

M. PROOFREADERS

After the articles have been written, they are taken to the proof-readers' desk. Here they are checked for content, spelling, and sentence structure. Then the article is handed to the teacher who checks for errors. It is then given to the editor who takes it to the typists.

N. TYPISTS (2)

Each Friday the class summarized the work of the week. The news items were discussed. The reporter who wrote "Geography Behind the News" was asked to give a brief summary of the geography of the country mentioned in the item. The discussion was always accompanied with map reading and interpretation of graphs or charts so that the entire class would get the benefit of the research made by a few. The work of the other reporters was evaluated by the class as items of the different issues were discussed.

Evaluation

- A. It made the entire class more conscious of world happenings.
- B. It made the pupils aware of the fact that there are many factors behind events in the news and the geographic ones often help to explain why the event happened.
- C. The feeling that everyone's work was needed provided a daily motivation and a challenge to do one's best.
- D. Every member of the class fitted in somewhere; the slow learner experienced success as well as the best students.
- E. There were no discipline problems. Interest and activity took care of that.
- F. The enthusiasm of the class for the work was the best indication of the success of the work.

This work can be carried on as long as interest is sustained. In this particular case, the paper ran for twelve weeks. The length of the class period was forty-five minutes.

Bibliography

Encyclopedias
Several textbooks
Newspapers, radio

News magazines
Library books

UNIT V

WHAT SHOULD WE KNOW ABOUT TRANSPORTATION?*Pupil Concerns*

1. The Philadelphia Transportation Company problems in Philadelphia
2. The "Navy--Air" Dispute
3. The Railroad problem

Pupil Goals

1. A better understanding of the present P. T. C. situation in our own city
2. To learn to look at both sides of every controversial issue before drawing conclusions

Content Outline

1. Street Transportation Problem
2. The Railroad Problem
3. Development of Land Vehicles and Methods of Transportation
4. Development and Problems of Sea Power
5. Development and Problems of Aviation
6. Great Inventors of Means of Transportation (Men whom we should honor because of their genius and perseverance.)

Activities

1. Planning, committee work, pooling information, organization, progress reporting
2. Blackboard art work (by nine members of class): development of travel on land, sea, and in the air; inventor portraits; crossing our country chart; development in past 75 years
3. Committee scrapbooks
4. Making of wooden and cardboard models: trains, automobiles, airplanes, boats
5. Dramatization by committee: "Development of Sea Power"
6. Speakers: Maureen Jordan and Kathleen Rae, who came from Southampton, England, recently: "Our Trip to America on the QUEEN ELIZABETH"
7. Trip to Franklin Institute by committee and report to class
8. Quiz prepared and given the class by Sea Committee
9. Collection and display of pictures on "Transportation--Land, Sea and Air"
10. Trip to Airport by committee and report to class

11. Writing for materials to add to fugitive materials
12. Invitation by Air Committee for speaker for class
13. Speaker: "My Airplane Travels"
14. Invitation to classes studying transportation to hear speaker and see our exhibit
15. Interviews by members of the class with: trolley motorman, railroad engineer, air pilot, bus driver
16. Discussion (led by committee): "What can we as students do to improve relations with P. T. C.?"
17. Poster work: Red Letter Dates in American Progress—1825 to 1949
18. Map study: Trace a shipment of coffee from Brazil, bananas from Honduras, rubber from East Indies, to your own home
19. Investigation by interviews (parents, relatives, neighbors): "What has Philadelphia done during the past year to improve the street traffic in your neighborhood? What suggestions would you give for improvements?"
20. Films:
 - The Airplane Changes Our World Map
 - The Bus Driver
 - Air Transportation
 - Airplane Trip
 - The Passenger Train
 - Traffic
 - A Boat Ride
 - This Shrinking World
21. Committee on Land Transportation Projects: After standing ten minutes at a busy intersection and watching traffic, counting the cars that pass during that period, and noting the approximate speed of travel, answer: Do the drivers avoid traffic jams? What devices do the police use to control traffic? To what extent are safety rules observed by drivers and pedestrians?
22. Preparation of a table of the average city family's dollars, and what proportion of it is spent on transportation?
23. Spelling, comprising lists of words dealing with transportation
24. Creative Writing:
 - Poetry
 - Contrast Columbus's ocean voyage with a voyage on the QUEEN MARY
 - What I did toward making our unit a success
25. Discussion of controversy between Navy and Air Force leaders; problem of unification of the three services
26. Television programs seen and reported to class
 - Meet the Press (an interview)

Court of Current Issues (decisions 8 to 4 in favor of Navy)
 Television Newsreel
Newsweek Reviews the News

27. Preparation of 6-page folder on transportation, including:
 Title Page, Contents, Committees, New Words and Their Meanings, My Mistakes and Corrections, Our Activities, and Books We Read in Connection with Our Unit
28. Bulletin Board work
29. Stories on Transportation:
Just For Fun, Smith and Hazeltine
When Automobiles Were New, Emily Kimbrough
Forgotten Highways of Transportation
30. Building of Magellan's ship for use as property in dramatization
31. Dramatization by Committee on Sea Transportation: "Story of Magellan's Voyage"

Culminating Activity

Exhibit in classroom of models made by class members and of art work, inviting the other classes which were also studying this unit. At this time we also had a speaker on "Air Travel."

Books Used by Pupils

Transportation, William F. Rachelaen
Great Inventors and Their Inventions, Frank P. Bachman
Men Under The Sea, Commander Edward Ellsberg
Our Airliners, Crump and Maul
Transportation and National Defense, Joseph L. White
Power from Start to Finish, Franklin Reck and Claire Reck. Crowell, 1941
The Story Book of Wheels, Maud and Miska Petersham
The Story Book of Ships, Maud and Miska Petersham
Cruisers of the Air, C. J. Hylander
A History of Commerce and Industry, C. A. Herrick
The Railroad Builders, John Moody
Through by Rail, Charles G. Hall
Full Steam Ahead, Henry B. Kent
Power for America, Dunn-Morrisett
The Romance of American Transportation, Franklin Reck
Socialized History of the United States, C. G. Vannest and H. L. Smith. Scribner, 1937
On the Railroad, Robert S. Henry
Americans Leaders and Heroes, Gordy
Heroes of Our Country, Southwork
A Brief History of the World, G. W. Botsford and J. B. Botsford. (Rev. ed.) Macmillan, 1926.
Famous Americans, Uhrbach and Owens
Seven Days at Sea, Ruth M. Strang and others. Teachers College, Columbia University, 1938
Motor Vehicles Educational Packet
Needed Women in Aviation, Dicky Meyer
Man and the Motor Car, Albert W. Whitney
Travel By Air, Land and Sea, Hanson H. Wester. Houghton, 1934

The Wonder Book of the Air, Allen L. Miller
The American Student Flyer, Hamberg and Tivency
Aircraft Carrier, Robert A. Winston
Bombardier, Henry B. Lent
Fighting Ships of the U. S. A., Commander Victor Blakeslee
Aviation Cadet, Henry B. Lent
Runway to the Sun, Col. Robert L. Scott
The Gasoline Automobile, Elliott Consoliver
Visibility Unlimited, Ernest C. Vetter
Railroad West, Cornelia Meigs
Sky Hostess, Betty Peckhaw
Long Trains Roll, Stephen W. Meader. Harcourt, 1914
Flying High, Franklin K. Matthews
North to the Promised Land, Harold C. Wire
Boys' Book of United States Mail, Irving Crump. Dodd, 1926
Onward To New Frontiers of Our Globe
North America by Plane and Train, A. E. Aitchison and M. Uttley. Bobbs, 1931
Around the World in Eighty Days, Jules Verne
Riding the Air, D. J. Sickels
Living with Science, Fowler, Collister, Thurston
Going Up, Jack Buckdolt
Captains of the Sky, Albert Munday
Aviation Science for Boys and Girls, Charles K. Grey
The Modern Wonder Book of the Air, Carlisle, Cleveland, and Wood
The Story of Flying, Beatrice Hurley
Boats, Beatrice Hurley
 Time tables (railroads and airlines)

Teacher References

Newspapers and magazines following up controversial issues:

Time, *New York Times*, *Philadelphia Inquirer*, *Philadelphia Bulletin*, *Life*

Same books as for students

Resource Unit, Columbia University (Lincoln School)

NOTES

UNIT VI

WHAT SHOULD WE KNOW ABOUT OUR NEIGHBORHOOD?

(A Means Toward Planning and Building a Better Community)

Orientation

The approach necessary to arouse interest in neighborhood planning and building must be based upon the kind of community in which a particular group of boys and girls live. The youth in a blighted neighborhood face life with a different set of values and goals from those boys and girls living in a good residential area. It, therefore, follows as part of the preplanning for a unit of this type, that each teacher must personally make a study of the kind of neighborhood in which her pupils live. Intelligent teacher guidance requires a knowledge and understanding of the assets, liabilities, and needs of a given community.

To get boys and girls thinking about their needs for better living the teacher may invite them to list the things they like about their home and neighborhood and the things they do not like. A discussion of their findings coupled with a similar statement by parents as revealed to their boys and girls will make a good beginning point for a unit on neighborhood improvement.

Suggested Method of Procedure

- A. Set Up Criteria for the Requirements of Our Needs for Good Living:
 1. A decent home in a good neighborhood for every person
 2. A neighborhood that is safe
 3. A neighborhood that is attractive
 4. Good clean stores and service shops within walking distance
 5. A safe place to earn a living
 6. Industries separated from homes to prevent smoke, soot, noise, dirt, and odors
 7. Open space, green space, trees, flowers, and sunshine
 8. Transportation that is adequate and not dangerous; adequate parking space and wide streets
 9. Clean water and an adequate sewage and rubbish disposal system
 10. Wholesome recreation places nearby for all age levels
 11. Community center, schools, libraries, nursery schools, museums, art centers, and similar social needs
- B. Plan a Survey of the Neighborhood to Get More Accurate Information:

*Suggestions For Problems**Suggestions For Action*

- | | |
|--|--|
| 1. What are the boundaries of our neighborhood? | 1. Teacher draws map of school neighborhood on board or on large piece of paper and class identifies streets by names. |
| 2. How can we find where most of the boys and girls in the class live? | 2. Boys and girls work on a map of the neighborhood and spot the place they live. |

*Suggestions For Problems**Suggestions for Action*

- | | |
|--|---|
| <ol style="list-style-type: none"> 3. What are the good things we are going to look for? 4. What are the bad things we might see? 5. How can we record our findings accurately on the spot? 6. How can we be sure we are going to be able to make block study? 7. How can we share the job of getting information about our neighborhood? | <ol style="list-style-type: none"> 3. Class discussion, enumeration, and evaluation. 4. Class discussion, enumeration, and evaluation. 5. Discussion followed by demonstration of a block study on the board; a free-hand sketch with vital comments about what they see. 6. Class goes out with teacher for a visit in neighborhood. They all map the same block together and compare their findings when they return. 7. Volunteer committees of two or more formed to assume the responsibility of studying a given block (The one they live in if possible). |
|--|---|

C. Make a Survey of the Neighborhood

*Suggestions For Problems**Suggestions For Action*

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. How can we know whether we have more good houses or bad? 2. What kind of services and facilities for good living did we find? 3. How can we use color to help show what we found in our block? 4. How can we be sure our information is accurate? 5. How can we organize the information we have discovered about our neighborhood? 6. How can we get a complete picture of the neighborhood? 7. What things do we need to improve in our community? 8. What facilities do we need for better living? | <ol style="list-style-type: none"> 1. Count number of good and bad dwellings. 2. Make a listing of number and kinds of service stores in block. List recreation facilities, commercial and noncommercial. 3. Uniform color code was developed and used by each boy and girl to color in each type of information on block map. 4. Boys and girls check each other's block study and evaluate the information on the block map. Compare with land use map from City Planning Commission. 5. Committee compiles lists indicating number and frequency of each fact discovered. 6. Boys and girls arrange block studies side by side to give complete picture of neighborhood. Committee transfers findings to large single map. 7. Class analyzes amounts and distribution of color code. Discussion of notations and summary lists. Boys and girls state definite conclusions in written form. 8. Check findings against criteria for a good neighborhood. |
|---|---|

- D. Evaluate the Neighborhood in Terms of Our Living Requirements.
- E. Compare the Neighborhood with Other Parts of the City.
 - 1. Boys and girls contact Philadelphia Housing Association and Citizens' Council on City Planning. These agencies arrange an itinerary and guide the tour made by school bus.
 - 2. Boys and girls observe, ask questions, and take notes, which they use for a later discussion.
 - 3. Boys and girls evaluate their own neighborhood in relation to other parts of city just visited.
- F. Select the Community Need Which is Most Urgent, One That the Pupils Can Do Something About.
- G. Interest Others in this Problem by the Means of Charts, Graphs, Maps, Diagrams, Pictures, and Models.
 - 1. Plan a solution for this problem and illustrate it graphically.
 - 2. Discuss it with our classmates, teachers, and parents through the school assembly, parent-teacher association, school newspaper, and student council.
 - 3. Visit the City Planning Commission, present our ideas, and get the advice of the experts.
- H. Modify and Readjust Our Plan to Suit Our Latest Findings.
 - 1. Interest our neighbors through our community council. The community council studies the problem and, with the help of experts, a course of action is decided upon.
- J. The local councilman and ward leaders are invited to a community meeting where the problem and suggested solution are offered. Governmental aid and action are requested.
- K. Action is taken by the city authorities, or a plan for continued and combined action is proposed.

Possible Pupil Learning Experiences

- A. Reading
 - 1. *Ten Communities* by Hanna
 - 2. *Community Interests*—Part II by Berman, Fryer, and Bernard
 - 3. *In Country and City*, Bobbs Merrill
 - 4. *Youth Shares in Planning A Better Philadelphia*
 - 5. Current articles in school, local, and city newspapers and periodicals
- B. Listening
 - 1. To ideas of our classmates, parents, and neighbors
 - 2. To ideas of experts from
 - a. The Citizens' Council on City Planning
 - b. The Philadelphia Housing Association
 - c. The Redevelopment Authority
 - d. The Philadelphia City Planning Commission

3. To the transcriptions
 - a. Penn's "Greene Country Town," by Philadelphia Public School Radio Assistants
 - b. "The Soldier Hunts a Home," by Philadelphia Public School Radio Assistants
4. To current radio programs

C. Observing

1. How really to see our neighborhood
2. How to make a block study
3. The story told by pictures, graphs, and charts in the book called *Housing in the United States*, by Archie W. Troelstrup
4. A demonstration of Citizens' Council model for redeveloping the area around the Furness Junior High School
5. How to use a color code for maps
6. How boys and girls in other schools showed their ideas about their neighborhood
7. Moving pictures such as:
 - a. The City
 - b. A Place to Live
 - c. Building America's Homes
 - d. Expressways
 - e. Life Stream of the City
8. Kodachromes

D. Taking Trips to Other Parts of the City to See

1. Good residential areas or blighted neighborhoods; take photographs
2. Well-planned public housing
3. Recommended sites of planned improvements by the City Planning Commission
4. Early Philadelphia as revealed by pictures and maps at Logan Square Library
5. The Port of Philadelphia
6. Evidence of past lack of planning and haphazard building; evidence of the same mistakes being repeated today
7. Places of historical importance in the community
8. Well-planned recreation facilities such as the Salvation Army Recreation Center at 11th and Huntingdon
9. The Philadelphia City Planning Commission

E. Making and Doing Things to Show Our Ideas About Our Neighborhoods, such as

1. Drawing maps of our neighborhood
2. Charts, graphs, and diagrams of what we have or what we wish to have in our community
3. Constructing paper, wood, or clay models showing the present and future neighborhood
4. Paintings, pictures, and signs to tell the story

5. Collecting scrapbooks on our progress, as revealed by newspaper clippings and other materials
 6. Arranging bulletin board displays
 7. Planting grass, flowers, shrubbery, and trees to improve our yards and neighborhood squares
 8. Organizing a clean up, paint up, fix up campaign
 9. Helping transform an empty lot into a play site
- F. Talking and Writing About Things, such as
1. Writing letters of invitation for the experts to visit us
 2. Writing letters seeking illustrative maps and printed material from various city planning commissions in this country
 3. Writing newspaper articles for the school or local community newspaper to inform people about our plans
 4. Writing plays and dramatic sketches to illustrate what we want for our community
 5. Planning for graduation exercises which use neighborhood planning as a theme
 6. Talking to the school assembly and parent-teacher organization about our ideas
 7. Talking to our neighborhood community council asking their advice and help
 8. Keeping log books as a record of our daily activities
 9. Speaking on radio programs and on television programs

Evaluation

Throughout this entire unit there should be a growth of the boys and girls in many areas. There should be definite evidences of knowledge in action; a translation of thinking into doing. These may be measured by anecdotal records based on observation of pupil behavior or by check lists and other survey techniques. However, in a unit of this kind there should be certain specific outcomes, such as:

- A. Growth in sharing ideas with others and working cooperatively
- B. Growth in the ability to see a neighborhood problem and in gathering, selecting, and organizing facts to help in its solution
- C. Increased awareness of change in the environment and increased courage to experiment with new ideas about neighborhood improvement
- D. Growth in the ability to assume the responsibility for doing one's share of work
- E. Growth in the establishment of the physical and mental health habits of cleanliness, neatness, and orderliness necessary for health and safe living
- F. Growth in the ability to express findings in language and in graphic or three-dimensional form
- G. Growth in the ability to make use of governmental and community agencies for improving the neighborhood

- H. Such action as:
1. Empty lots cleaned
 2. Rubbish removed from homes, yards, and neighborhood
 3. Increase of recreational facilities available to all age levels
 4. Homes repaired, painted, and cleaned
 5. Street paving repaired
 6. Traffic lights and street lighting installed
 7. Improved transportation and removal of safety hazards
 8. Improved school cleanliness and increased educational facilities
 9. Community organizations formed for improving the neighborhood
 10. Flowers, grass, trees, and shrubs planted, as well as other neighborhood beautification
 11. Removal of blight-forming factors, such as industrial nuisances, dumps, junk yards, and dangerous structures
 12. Increased cleanliness of streets, particularly on rubbish collection days
 13. Improved shopping and service facilities

Teacher Aids and Resources

- A. Speakers, discussion leaders, literature, and consultant service from
1. Representative from Housing Association
 2. Citizens' Council on City Planning
 3. Planning Commission
 4. Redevelopment Authority
- B. Audio-Visual Aids
1. Sound moving pictures may be procured with operator and machine from Citizens' Council
 2. Model Demonstration by Citizens' Council of redevelopment of an old neighborhood
 3. Kodachromes
Visual Education Library
 4. Maps—Land Use, Zoning, Census, Airport, Distribution, Recreational Facilities, Highways and Expressways. These may be secured from City Planning Commission.
 5. Models, charts, and diagrams prepared by other schools
- C. Excursions—Trips planned and guided jointly by Citizens' Council and Housing Association. Itinerary may include visit to any type of neighborhood or proposed site of city government.
- D. Consultant service, equipment, and supplies furnished by Agricultural Department of Board of Education for purpose of planting neighborhood gardens and improving community parks
- E. Books and pamphlets used
1. *Utilizing the Local Environment*, by Margaret O. Koopman
 2. *Exploring the Environment*—Elementary School Social Studies—Pamphlet III, by University of the State of New York, Bulletin 1250

3. *How to Know and How to Use Your Community*, by Department of Elementary School Principals, NEA Publication, 1942
4. *Youth Serves the Community*, by Paul Hanna
5. *Uses of the 1940 Census Data in Schools*, by United States Bureau of Census, Government Printing Office, Washington, D. C.
6. *City Planning in Philadelphia*, by Citizens' Council on City Planning
7. *City Development*, by Lewis Mumford
8. *Cities Are for People*, by Mel Scott
9. *How to Make a Community Youth Survey*, by M. M. Chambers and Howard Bell, American Council on Education
10. *Recommended Public Improvements*, by Philadelphia City Planning Commission
11. *You and Your Neighborhood*, by Stonorov and Kahn
12. *Places for Playing in Cleveland*, by Cleveland City Planning Commission

UNIT VII

HOW DOES CONSERVATION AFFECT OUR COMMUNITY AND OUR LIVES?

Objectives

TEACHER

1. To arouse a sense of personal responsibility to conserve the natural resources of our community
2. To make pupils aware of how to live better by saving nature's bountiful resources
3. To make pupils aware of our resources
4. To create a desire in the pupils to learn more about the possibilities in our resources
5. To enable pupils to realize how to go about conservation of our resources
6. To make pupils aware of the reasons for conservation
 - a. Growth of populations
 - b. Wearing away of top soils
 - c. Wasteful cutting of forests
 - d. Using up of minerals and fuels
 - e. Effect on community
7. To enable pupils to understand effects of conservation on future of generations
 - a. How long it takes for one inch of top soil to form
 - b. How long it takes to grow a forest
 - c. How cutting forests affects the water supply
 - d. That metals are irreplaceable
8. To teach how the health of our community can be affected by flood damage and contamination of water supply
9. To have pupils survey our community for stream pollution and misuse of natural resources

PUPIL

1. To know how to practice good habits of conservation
2. To learn why conservation is a necessity
3. To cause others to be interested in conservation
4. To learn what is important in conserving
5. To appreciate what conservation will do for future generations
6. To find out how conservation can improve present living conditions in our community by practicing good conservation methods
7. To have more pleasure because of having removed unsightly conditions
8. To better the community health
9. To better community economic conditions by providing more work in the forest lands
10. To do away with eroded farm lands and provide more food and better satisfied farm workers
11. To learn about job opportunities and pay in conservation
11. To keep our mines lasting longer
12. To learn how to accomplish those objectives by:
 - (a) Getting a knowledge of conservation
 - (b) Farming without wasting top soil by:
 - (1) Contour farming
 - (2) Strip farming
 - (3) Planting trees on eroded hillsides
13. Conserving forests at same time
 - (a) Making woodland pastures
 - (b) Having places for wild game to propagate
 - (c) Planting trees for the future generations
 - (d) Causing community to become interested

Activities

TEACHER AND PUPIL

1. Arrange for group planning and organization of committees.
2. Find out the best conservation practices.
3. See county agent and district forester.
4. Find out scientific methods of reforestation.
 - Kinds of trees and shrubs
 - Woodlot care
5. Plant trees for reforestation.
 - Grow trees from seed
6. Test for the best method of insect control.
 - Life history of harmful insects
 - Poisons for insect control
7. Test for the best kinds of grasses for soil conservation.

8. Learn just what are:
Insect pests
Animal pests
Useless plants
9. Practice tree farming by removing worthless trees from wood lot.
10. See district game protector to learn about:
Eradication of predators on game
How to provide game food and cover
How to raise game for release
How best to keep balance of nature in wild animals
11. Find out best soil conservation methods.
12. Observe our surroundings in the community
Going to and from school on buses
Farmer children and miner children—use of their environments
Field trips
To woodlands to show old and new methods of planting and care of trees
To mine and mine stripping to show wasteful vs. careful mining
To farming country to show erosion
To show how strip and contour farming helps to conserve top soil
13. Inquire from older inhabitants:
 - (a) How water supply has changed
 - (b) Why streams are lower now
 - (c) How fishing has changed because of:
Warmer streams
More and faster run-off
Stream pollution
 - (d) How cutting forests wastefully caused our streams to be shallow and warm
14. Find how floods are caused because forests were wastefully cut and rapid run-off has resulted.
15. Inquire how economic conditions changed because of poor conservation methods in the past.
16. Find out from Chamber of Commerce, and like sources, why:
 - (a) Sullivan County population trends have been downward in the last fifty years
 - (b) Why county dropped in population, from approximately 14,000 people in 1900 to about 7,000 in 1950
 - (c) Find difference in number of miners employed and tons of coal mined
 - (d) Find, if possible, change in amounts of timber processed
 - (e) Find why five once thriving towns in region have practically disappeared
 - (f) Inquire whether this was a normal condition or due to wasteful use of resources

- (g) Find why there are so many abandoned farms in our community
17. Try to decide whether this was a result of poor farming methods.
 18. Find out where fires resulted; why those fires were allowed to rage unchecked.
 19. Find out why there were no efforts to prevent fires.

Evaluation

1. Pupils benefit in learning something which will be of value to them and to their community.
2. They have seen the need for conservation.
3. They have had some experience in recognizing the need for conservation of resources in community.
4. They are able to pass this information along to others, and so make the community conservation conscious.

Attitudes

1. Pupil should be concerned about better methods of farming, mining, and forest care.
2. They should be more careful with fire in the woods.
3. They should be concerned about forest conservation.
4. Citizenship should be greatly improved because of their experiences.
5. Pupils should realize that knowledge should act as a guide to proper use of resources.
6. Pupils should realize that ignorance probably caused most of community's bad practices.
7. Cooperation with conservation agencies
 - Forests and Waters
 - Fish Commission and Protectors
 - Game Commission and Protectors
8. Better understanding of farmers' problems
 - Avoid destruction of property when hunting, fishing, and vacationing
9. Better understanding of what State and Federal agencies are attempting to do in order to:
 - Save forests
 - Conserve top soil
 - Clean up polluted waters
 - Increase game and fish
 - Stop wasteful mining of minerals

Check List of Outcomes

1. KINDERGARTEN: A desire to protect trees, flowers, shrubs, and lawns, practice of feeding birds during the winter when food becomes scarce.

2. **PRIMARY GRADES:** Practice of care not to injure lawns, flower beds, shrubs, trees; practice of enjoying wild flowers without picking them; practice of care not to disturb nesting birds; considerate attitude toward toads, harmless snakes, and other valuable animals that are often killed or badly treated.
3. **INTERMEDIATE GRADES:** Cooperation in the community effort to maintain lawns and parks; practice of extreme care in building and extinguishing outdoor fires; a desire and tendency to keep the waters clean for our use and for the conservation of water life; appreciation of birds, snakes, frogs, toads, and other wild life, and the disposition to aid in their protection; participation in the conservation activities of organizations such as the National Association of Audubon Societies, the Wild Flower Preservation Society, Junior Campfire, and Cub Scouts.
4. **JUNIOR HIGH SCHOOL:** Participation and contribution in the conservation activities of such organizations as Boy Scouts, Girl Scouts, Campfire, 4-H, and other clubs; familiarity with the history of the region and with the changes that have taken place in soils, waters, forests, grasslands, wildlife, and mineral resources since the coming of early settlers; a great interest in the region and its problems, and a sense of sharing in the responsibility and work of conserving and restoring its natural resources; growth in the development of abilities and conservation tendencies in fire prevention, tree planting and care, wild flower protection, prevention of erosion, intelligent observance of fish and game laws, etc.
5. **SENIOR HIGH SCHOOL:** Intelligent participation in the development of a water control program that will help to solve the problems of water pollution, flood and erosion control, maintenance of water levels, and development and wise use of water power resources.

Appreciation of the urgent need to conserve our soil and intelligent participation in the soil conservation movement.

Respect for game laws and cooperation in the conservation and restoration of wildlife.

A tendency to evaluate critically extermination activities (such as vermin hunts, bounty payments, and hawk, owl and crow shoots) in the light of scientific evidence and with the understanding of motives of the promoters.

Understanding of the causes and the extent of depletion of our forests and the ability and tendency to participate in the development of a sound forestry program for multiple use.

Awareness of the rate at which our irreplaceable mineral resources are being depleted, of the need for regulating their use, and the need for substituting replaceable resources where possible.

Tendency and ability to work for the preservation by city, county, state, and nation of remaining natural areas of unusual interest and beauty.

Understanding of the possibilities of wise land use, planning in conserving soil, forests and wildlife resources, so as to assure permanent security and satisfaction for man.

Deep concern for human values and intelligent participation in action for human conservation.

Bibliography and Source Materials

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Rockefeller Plaza, New York 20, New York
- American Forest Products Industries, Inc.—Publications and Films
1319 18th Street NW, Washington, D. C.
- Pennsylvania Department of Health—Clean streams
Harrisburg, Pa.
- Pennsylvania Department of Forests and Waters—Publications
Harrisburg, Pa.
- Agricultural Experiment Station
The Pennsylvania State College
- National Educators Society, Inc.—International Index
1510 Yocker Avenue, Kansas City, Kansas
- Everyday Biology, Curtis-Caldwell-Sherman, Ginn and Company
(Unit IV—Conservation of Living Things)
- County Maps
- Pennsylvania Game News*
Harrisburg, Pa.
- Pennsylvania Fish Commission—Publications
Harrisburg, Pa.

Films for Conservation Teaching

PENNSYLVANIA DEPARTMENT OF FORESTS AND WATERS

- Curse of the Forest.* Black and White. Sound. 16 mm. 20 min.
(Also on same reel: *Story of a Pine Seed*)
- Frying Pan and the Fire.* Color. Sound. 16 mm. 20 min.
- It's No Picnie.* Color. Sound. 16 mm. 30 min.
- Life Blood of the Land* Color. Sound. 16 mm. 20 min.
- Management on the Fire Line.* Color. Silent. 16 mm. 45 min.
- More Than Timber in Trees.* Color. Sound. 16 mm. 30 min.
- Trees for Tomorrow.* Black and White. Sound. 16 mm. 20 min.

PENNSYLVANIA GAME COMMISSION

- Making Friends with the Farmer—Safe Shooting Around the Farms.* Silent. 16 mm.
- Our Wildlife.* Sound. 16mm. 40 min.
- Pennsylvania Bird Life.* Silent. 16 mm.
- Pennsylvania Large Game Program.* 16 mm.
- Pennsylvania Small Game Program.* 16 mm.

PENNSYLVANIA DEPARTMENT OF COMMERCE

- Pennsylvania Pleasureland.* Color. Sound. 16 mm. 25 min.

UNIT VIII

WHERE DO WE GET OUR RUBBER?*Preliminary Teacher Planning*

- A. The problem originated in a discussion of the high price of tires, and the question of rationing. Problem was phrased in class discussion.
- B. The unit was introduced by a film on natural rubber and another on synthetic rubber.
- C. Concern of students was enlisted because most of students were concerned with tires for the family car.
- D. Teacher met chairmen of committees to direct activities.
- E. Pupil experiences and sources were planned.

Objectives

Central life objective and contributing objectives developed as a class discussion after showing of two films.

- A. To appreciate to what extent the United States is dependent on other parts of the world for supplies of natural rubber
- B. To understand the significance of synthetic rubber and how it affects our rubber stock pile
- C. To appreciate the importance of rubber in our everyday lives
- D. To do everyday's assignment as well as one can
- E. To develop dependability of the individual

Orientation

- A. Appropriate facts presented
 - 1. Annual consumption of rubber
 - 2. Annual production of natural rubber
 - 3. Location of natural rubber countries
 - 4. Relative cost of synthetic and natural rubber
- B. Technique used in motivation and orientation—films, library research, reading, booklets, pupil-conducted committees
- C. Objectives mentioned above and
 - 1. To appreciate how people live in tropical countries
 - 2. To understand the relative cost of synthetic and natural rubber

Learning Period

- A. Committees—40 in class, 8 committees, elected own chairman, chose topic
 - 1. Map work—chose cities and country, trade routes, hektographed list. Helped class on map day.
 - 2. Vocabulary—Gave class hektograph list. Spelling and meaning bee.
 - 3. Natural condition for natural rubber. Climatic charts for three places in three continents that produce rubber.
 - 4. Clippings and articles in the library.
 - 5. Synthetic rubber.

6. Uses of rubber—qualities. Collection and mounting of articles or pictures.
 7. Plants that give rubber.
 8. Bar graph—leading imports of United States for 1950, 1940, 1930.
 9. Line graph—showing rubber production by localities and synthetic production since 1900.
 10. Circle graph—showing rubber (natural) production by sections.
- B. Individual or group learning, reading of references, making graphs and maps, vocabulary study, oral reports.
- C. Community contacts. Price of tires now, 10 years ago, how many sold in several of largest agencies. A committee appointed two weeks before start of unit wrote to rubber companies for booklets.

Culminating Activity

Chairman of committee assigned references to be read and work to be done. Material was assembled during one week's work period. Depending on type of material, the chairman gave report or assigned individual members to explain activity. Class took notes. A mimeographed study sheet was completed in class, using notes on projects which committees assembled.

- A. Evaluative Criteria *Evaluation*
1. Study sheet check
 2. Check test made from questions chairmen turn in
- B. Central objective was an appreciation of dependence of United States on other parts of the world for natural rubber and the expense of synthetic. It was approached, perhaps reached.
- C. Desirable behaviors of social competence were developed through working together.
- D. The achievement was worth while from the standpoint of content.
- E. Three weeks' time used.

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A. BOOKLETS

- "Guayule"—General Tire and Rubber
 "Story of The Tire"
 "Rubber"—Firestone Tire and Rubber
 "Wonder Book of Rubber"—B. F. Goodrich
 "We Had to Have Rubber"—Rubber Manufacturers Association, 444 Madison Avenue, New York 22, New York
 "Story of Rubber"—U. S. Rubber Company

B. BOOKS

- Brigham and McFarlane, *How the World Lives and Works*
 Colby and Foster, *Economic Geography*
 Goode's *Atlas*
 Jones, *Economic Geography*
 McConnell-Harter, *Geography of the Working World*
 Perry, Josephine, *Rubber Industry*
 Smith, *Industrial World*
 Thralls, Zoe A., *The World: Its Lands and Peoples*
 Van Cleef, *Global Geography*



STUDY OF THE PETROLEUM INDUSTRY

SECTION 3

GRADE NINE

WHAT CONDITIONS MAKE PENNSYLVANIA THE KEYSTONE STATE?

Scope

No intelligent person can say that political events and social processes going on in the world today are of no interest to him. The world is more closely knit together in many ways than ever before, and we have an obligation to be intelligent about our neighbors at the local, state, national, and international levels. We may not approve of everything our neighbors do, but we must face the fact that we live on others' doorsteps and must learn to know their wants, their desires, and how they live, work, and play.

Our own state, the Keystone State, should now take on a new meaning for us. It is and has always been prominent because of its transportation links, because of its physical features, because of its position in America's industrial structure, and because of the leadership that it has always assumed among the states and nations of the world.

Pennsylvania should no longer mean only forests and farmlands, rolling over rounded uplands to a cloud-banked horizon, or rows of tall buildings bordering city streets with a rush of people, or railroad tracks with loaded coal cars leading from towering tipples and breakers. If one really wants to know Pennsylvania, and to understand her problems, he must realize that it means all this and much more.

It means many people aiming and working to educate themselves to fit into a democratic society, to produce and consume intelligently, to be healthy, to appreciate beauty, to use leisure wisely, to respect others, to express themselves clearly, to solve problems scientifically, and to be worthy participants in home and family life.

It is hoped that teachers and pupils, working and planning together, will find the following units challenging and will learn that our State is a true keystone with an even deeper significance than in colonial days.

Suggested Unit Titles

1. How does the mineral wealth of Pennsylvania influence the way we live?
2. How must mining methods be adjusted to natural conditions in order that coal can be mined profitably?
3. Why is the anthracite region of Pennsylvania one of our greatest problem areas?
4. How can oil well operators in the Allegheny Plateau afford to keep wells producing when their yield is so small?
5. What natural conditions have helped Pennsylvania become the leader in the iron and steel industry?
6. Why is the Pittsburgh region a great area of heavy industry production?
7. How has the chemical industry helped us to secure, add to, and preserve our food supply?
8. What geographical conditions have caused the large centers of population to be where they are in Pennsylvania?
9. Why are there differences of agricultural productivity throughout Pennsylvania?
10. Why is Pennsylvania an important producer of food?
11. How does the population pattern of Pennsylvania help determine the agricultural pattern?
12. Why is the Lancaster region a very important farming area?
13. What natural conditions help to explain the present distribution and amount of forest land in our State?
14. Why must we conserve the forests of Pennsylvania?
15. Why has fishing for profit declined in the State while fishing for pleasure has increased?

16. How can Pennsylvania use the runoff from her mountains more profitably?
17. How have climate and weather conditions helped in Pennsylvania's development?
18. How and why can Pennsylvania attract tourists and develop her resort facilities?
19. Why is Pennsylvania considered one of the best recreational areas in the United States?
20. How can I make Pennsylvania a better place in which to live?
21. How does the economy of Pittsburgh differ from that of Philadelphia, of Harrisburg, of Erie, of other selected areas?

Illustrative Units

These units may be readily adapted for local use.

- UNIT I: How Can We Get Acquainted with Our State?
- UNIT II: How Do We Read the Landscape?
- UNIT III: How Is Scientific Farming Concerned with the Soil in Our Community?
- UNIT IV: Why Has the Petroleum Industry of Pennsylvania Grown Into a World Industry?
- UNIT V: Why Is Pennsylvania a Great Industrial State?
- UNIT VI: How Has the Environment Affected the Development of Transportation in Pennsylvania?
- UNIT VII: Why Are There Differences in Agricultural Productivity Throughout Pennsylvania?
- UNIT VIII: How Did We Get Our State Boundaries?
- UNIT IX: How Has the Geography of Pennsylvania Brought Us Prosperity?

UNIT I

HOW CAN WE GET ACQUAINTED WITH OUR STATE?

Overview by Teacher and Planning with Pupils

Objectives

1. To develop an understanding of how geography influences our ways of living in Pennsylvania
2. To increase pupil appreciation of Pennsylvania and of the lives and hard work of our forefathers
3. To show how the Keystone State influenced the growth of democracy
4. To indicate the firm and solid characteristics of Pennsylvania traditions
5. To develop pupil self-identification with his community and State
6. Other objectives developed through pupil-teacher planning

Activities (Individual, committee, or class projects and reports)

1. School trips to: (1) nearest unique geographic sites and centers, (2) to the nearest museum, (3) State Capitol (if possible), (4) State offices in the community, (5) old routes, etc.
2. Outside speakers: (1) member of State legislature, (2) State farm agent, etc.
3. Map-making: (1) topographical regions, (2) counties, (3) population, (4) agricultural resources, (5) State forests, (6) resources, (7) manufacturing, (8) transportation, etc.
4. Graphic: (1) Construct models of geographic places, (2) make sketches of geographic sites, (3) draw cartoons of early life
5. Literary: Read and report on fiction or biography portraying early Pennsylvania life, transportation, and communication.
6. Music: Learn and sing "Pennsylvania"
7. Dramatizations: (1) Washington's Journey to Fort Venango, (2) Who Am I? (Student describes himself as a geographical, historical character such as Admiral Peary. Class furnishes identification from successive clues)
8. Have students compile notebooks on current affairs in Pennsylvania, including clippings and illustrations on governmental, geographic, economic, and social affairs
9. Other activities developed by pupil-teacher planning

Content

1. *The Geographic setting in which we live*
 - a. A landscape of hills and mountains, valleys and plains, forests and streams
 - b. A pattern of farms, villages, and cities
2. *Pennsylvania, the Keystone State*
 - a. A favorable climate and abundant resources
 - b. Important and varied occupations and industries
 - c. A rich history
 - d. Contribution to American democracy

Culminating Activities

Pupil reports, exhibits, dramatizations, etc.

Evaluation

1. Unit test with direct teaching where needed
2. Pupil self-evaluation
3. Class evaluation of its cooperative work
4. See Chapter IV, "Evaluation"

UNIT II

HOW DO WE READ THE LANDSCAPE?

<i>Needs and Problems of Youth</i>	<i>Needs in Which the Subject Can Help</i>	<i>Grade Objectives Related to Needs</i>	<i>Unit Titles</i>
All youth need opportunities to develop their capacities to appreciate beauty in nature.	<p>All human life is closely related to nature.</p> <p>The nature pattern in many instances is altered by man.</p> <p>The landscape is made up of intimately related features which are mutually dependent on each other.</p> <p>Changes in the nature pattern may have far-reaching results.</p>	To develop an appreciation of the natural beauty found in the Commonwealth.	How do we read the landscape when traveling in Pennsylvania?
All youth need to be able to use their leisure to the best advantage.	<p>To know what to look for when traveling increases one's enjoyment in this form of leisure.</p> <p>Youth need to know where to find wholesome recreation in the community and state.</p>	To increase interest in travel.	<p>How do we enjoy the outdoors in Pennsylvania?</p> <p>How can we use the recreation places in our State to the best advantage?</p>
All youth need to understand the rights and duties of citizenship in a democratic society.	As citizens of Pennsylvania, we enjoy many privileges and each privilege imposes a duty.	<p>To appreciate the many natural resources found in Pennsylvania.</p> <p>To respect the rights of others when traveling.</p>	<p>Why should we respect the rights of others when traveling?</p> <p>Why is it our responsibility to observe the rules and regulations governing the use of State parks?</p>

UNIT II

HOW DO WE READ THE LANDSCAPE?—Continued

<i>Living, Doing, Learning Activities</i>	<i>Materials, Books, and Sources</i>	<i>Evaluation</i>
Planning excursions, hikes, motor trips from home to many places of interest.	Maps— Outline.	Did each individual show increased interest in travel?
Studying films, filmstrips, and slides.	Official Road Map, Pennsylvania Department of Highways.*	Were desirable behaviors evidenced?
Reading and interpreting travel folders.	Road maps from filling stations. Steam Railroad Map of Pennsylvania Public Service Commission.*	Do pupils express themselves clearly during discussions?
Reading timetables and surface maps.	Stream Map of Pennsylvania, Sanitary Water Board.*	Did pupils acquire ability to read and interpret maps accurately?
Interpreting road maps and timetables.	Reconnaissance Land Utilization Map of Pennsylvania, School of Agriculture, Pennsylvania State College.	Have pupils developed understandings and a deeper appreciation of the scenery in the State?
Computing costs of travel by car, rail, water, and air.	Physical-Political Wall Maps.	Has the study of factual materials helped them make wiser decisions?
Collecting pictures of places of interest.	Daily Weather Maps.	Was out-of-school time used profitably?
Keeping booklets of news items.	Bulletins and Folders— Pennsylvania Department of Forests and Waters.*	Other criteria— Check list tests.
Mapping of trips taken, routes followed, points of interest noted.	Pennsylvania Geological Survey.*	Pupil self-evaluation.
Mapping topography of regions covered.	Pennsylvania State Planning Board.*	Class evaluation.
Surveying plant and animal life.	Pennsylvania Department of Internal Affairs.*	Leadership and co-workers' traits developed.
Collecting specimens.	Pennsylvania Turnpike Commission.*	
Keeping weather records.	Travel folders.	
Interviewing highway workers.	Film— <i>Pennsylvania</i> , Esso Oil Co.	
Discussing travel problems.	Timetables—air and railroad.	
Discussing people seen.	Textual Materials— Commonwealth of Pennsylvania, <i>My Pennsylvania</i> , Department of Commerce.	
Reporting on geographical-historical relationships.	Davis, L. C., <i>The Geography of Pennsylvania</i> , Silver Burdett, N. Y., 1939.	
Selecting major nature items and indicating their relations to culture features and conditions by discovering relationships.	Murphy and Murphy, <i>Pennsylvania Landscapes</i> , Pennsylvania Book Service, 1937. Harrisburg, Pennsylvania.	
	Nutting, W., <i>Pennsylvania Beautiful</i> , Old American Co., Framingham, Mass.	
	<i>World Almanac</i> .	

Teacher-Pupil Planning

When developing the unit *How Do We Read the Landscape*, the teacher introduced the work during a discussion in which the students shared their vacation experiences and discussed what they already knew about Pennsylvania and what they wanted to learn.

Teacher and pupils set up these major objectives for the unit:

1. To increase our interest in and enjoyment of traveling
2. To learn to use our leisure time wisely
3. To learn to appreciate the beauty of Pennsylvania
4. To understand the relationship between activities carried on in the State and the natural environment

When one pupil asked, "How can we read the landscape?" someone suggested taking a field trip. The class decided to list the items in the landscape to observe and to organize the list in chart form. See page 161.

Duplicate copies of the chart were made so that each student could record his findings as he studied the landscape.

A series of field trips in the local community were planned and taken. After the first field trip, the class found it necessary to discuss individual observations in order to verify them and to check the class's conclusions with commercial maps and references.

The class set up the following questions to use as a guide in discussion periods.

1. What resources have we seen in the community?
2. How are the people using these resources?
3. Could the resources have been used in better ways? If so, how?
4. What is the population of our community?
5. How is the population distributed?
6. How long have the various groups lived in our community?
7. What is the historical background of our community neighbors?
8. What is the standard of living of people in our community?
9. Have we seen evidence indicating that the people want beautiful things around them?
10. Are there handicaps to better living evident in the landscape?
11. What opportunities for better living do these people have?
12. Is there evidence of large-scale organization?
13. What kind of place will the young people of this locality inherit?
What are they now doing with this locality?

A master chart, like the one each individual used on the field trips, was put on the blackboard. When the class agreed on a feature in the landscape, the information was recorded on the master chart.

SUGGESTED CHECK LIST FOR OBSERVING LANDSCAPE**I. NATURE IN OUR LOCALITY**

<i>Item</i>	<i>Name</i>	<i>Type</i>	<i>Number</i>
1. Surface Features			
2. Bodies of Water			
3. Vegetation			
4. Animal Life			
5. Soil			
6. Minerals			
7. Weather Conditions			

II. EVIDENCE OF MAN IN OUR LOCALITY

<i>Item</i>	<i>Name</i>	<i>Type</i>	<i>Number</i>
1. Buildings			
2. Transportation Forms			
3. Work Activities			
4. Recreation Features			
5. Other Evidences of Man			

These activities led to the problem "How can we observe landscapes in other parts of Pennsylvania?" It was decided that each student would choose an area of the State, collect pictures, maps, statistical materials, pamphlets, and references on this area, compile the information, and then reproduce the information in a landscape drawing. When the drawings were completed and displayed, each individual gave an oral report explaining his work. During the work period the film *Pennsylvania Beautiful*, borrowed from the Esso Company, and the filmstrip *Pennsylvania*¹ were shown and discussed.

Evaluative Questions

The class used these guide questions in evaluating their unit work:

1. Have we learned to read the landscape?
2. Do we read meaning into what we see?

(Continued on page 166)

¹ S.V.E. Filmstrip, Society for Visual Education, 100 E. Ohio St., Chicago.

UNIT III

HOW IS SCIENTIFIC FARMING CONCERNED WITH THE SOIL IN OUR COMMUNITY?*Overview*

To arouse interest in this unit and to acquaint the pupils with the immediate environment, three field trips were planned. A survey of the school area was made and samples of soil from this area were tested. The class visited a nearby project where contour plowing and strip farming were seen. At a fruit farm the class learned about a five-year recovery program.

Activities

The group then planned for individual and committee activities and for recording and reporting their findings. The following questions for investigation were set up:

1. What are scientific methods of farming?
2. Why do farmers use scientific methods?
3. Did my ancestors practice scientific farming? Why or why not?
4. How will the State Department of Agriculture assist me in becoming a scientific farmer?
5. Does our Federal Government have a similar department which will assist me?
6. Are other countries practicing scientific farming?

Objectives

The following objectives were set up:

1. To realize the value of soil conservation
2. To discover the best means of conserving soil
3. To learn to test soil
4. To learn where to obtain information for efficient farm operation
5. To become acquainted with agricultural terms
6. To appreciate and respect the work of the farmer

Learning Period

1. During the learning period these films and filmstrips¹ were shown: *First in the Hearts of Farmers*, *Conservation of Natural Resources*, *Farm Animals*, *Water Power*, *Let's Look at Animals*, *Let's Visit a Poultry Farm*, and *The River*.

2. Students built models of farms drawn to scale, showing contour farming and the system of crop rotation. Pictures and diagrams were used to give concrete meaning to such terms as terracing and air-drainage. A bulletin board of clippings from current magazines and newspapers

¹ These films may be borrowed from the Film Library, State Teachers College, Millersville, Pa.

kept the class up to date on advances in scientific farming. The local farm bureau was contacted to discover what soil conservation programs were being carried on in the area. A bibliography of books and articles on soil conservation was compiled.

3. One of the students in the class made arrangements with her father for a field trip to his farm. At the farm, the class learned that when the farm was purchased the yield per acre was low and soil erosion was severe because the former owner had done little to prevent soil depletion. Through contour plowing and strip cropping the present owner was able to reclaim most of his worn-out land.

4. The farmer showed the class land where contour and strip cropping were not practiced. On this land the yield per acre was low and the top soil was being eroded. He then showed the class land where contour plowing and strip cropping were practiced. The gullies had been filled and planted with a protective cover-grass. A diversion ditch was dug. Contour plowing was done. Here yields were higher and soil was conserved. The students realized the value and the importance of contour plowing and strip cropping.

5. The class was taken to the apple orchard. The farmer explained that it was located on a slope because of air drainage. Short grasses planted between the trees reduced soil erosion. The apple orchard provided an additional money crop for the farmer.

6. At the pigpens the class learned the size of the pens, the number of pigs in each pen, and the average rate of reproduction. They learned about the feeding habits of the animals and about the care the farmer must give his animals.

As a result of the field trip, the students came to realize that a well-managed, diversified farm results in returns for the investor. They gained respect for a community neighbor who had so much to teach them.

7. From the following activities the class gathered facts for their discussion of soil analysis in scientific farming. Pictures which showed the productivity of a plot of ground before the soil was scientifically treated and pictures which showed the production of the same plot after scientific treatment of the soil, were studied and discussed. A soil-testing kit was purchased for two dollars. Each pupil secured a sample of soil from his home or farm and analyzed it to determine its fertility.

In analyzing the results of the tests, pupils considered the following:

- a. What is the pH reading? (Read from chart in kit.)
- b. Is the soil suitable for the crop now growing there?
- c. Is the soil sweet, neutral, or sour?
- d. If the soil is sweet, how much alum is needed for the proper acidity for a certain crop?
- e. If the soil is sour, how much lime is needed for the proper alkalinity for a certain crop?

A few students chose a test plot at home and applied the treatment as suggested by the analysis of the soil test. After a period of approximately two weeks these students analyzed the results of a second soil sample from the test plot.

8. A group of students interested in photography, took pictures of the test plots before and after soil treatment.

9. Each student planted tobacco, a dominant crop in this area, in individual boxes in the soil he had tested. At the end of a specified length of time the students compared the tobacco grown. They drew pertinent conclusions regarding tobacco growth in relation to soil fertility.

10. The local county agent was invited to the classroom to discuss problems of soil analysis.

Culminating Activities

As the culminating activity, a committee of pupils arranged for a television program on Channel 4, WGAL-TV, Lancaster, Pennsylvania. Two student representatives selected by popular vote presented the facts gathered and the conclusions drawn concerning the class's soil-testing program and study of soil conservation.

As a result of these activities, some students recommended to their parents that the soil at home or on the farm be treated. All individuals learned the value of soil analysis, of contour plowing, of strip cropping, and of crop rotation. They learned, too, that the scientific worker keeps an accurate record of everything he does.

Additional Activities

Other activities which might be included in a unit on scientific farming—

1. Draw a map of the local farm area on the blackboard. Locate on it the farms that class members have visited. Show by symbols what kind

of farm each is. Study the map to see if it shows any grouping of types of farms.

2. Plan a field trip to discover what types of farms there are within a one-, two-, or five-mile radius of the school.

3. Read widely to find:

a. What one needs to know before taking the field trip:

What kinds of farms are there in Pennsylvania?

Why did these types of farms develop?

What determines the location of the various types?

What are the products of each kind of farm?

b. What criteria one uses for judging a farmer's work:

Has the farmer increased his production?

Does he produce more nutritious food?

Does he get higher prices for his products?

Does he try to improve his soil?

Does he try to check erosion?

Does he practice conservation?

Does he try to control insects, weeds, plant diseases, and rodents?

Does he plan for leisure time?

Does he care for his tools and equipment?

Does he prepare his products for market properly?

Does he try to find out about the latest developments in farming?

Does he try to prevent fires and accidents?

Does he know the value of a farm pond?

4. Survey the local region to study soils, rocks, and plants. Make a museum collection of the specimens.

5. Have interviews with local farmers to discover what it is like to live and work on a farm.

6. Make a plan of a farm which you would like to own. Tell what kind of farm it is, why you chose that type, and where it is located. Show the use you would make of the various sections of the farm in relation to climate, surface, soil, and markets.

7. Choose a five- or ten-acre plot within a five-mile radius of the school. Draw a map of it and show how you would improve the use of that land according to the various scientific methods studied.

Evaluation

Additional questions which may be used in evaluating a unit of work on scientific farming—

1. How does a farmer cultivate his land scientifically?
2. How do scientific methods of farming influence the lives of people?
3. What new ideas about farming did we discover?
4. How can we conserve resources for future use?
5. How can we improve the appearance of the community?
6. What did we do during this unit that helped especially in solving the problem?
7. When should one draw conclusions about a problem?
8. What geographic tools did we learn to use?
9. What tools should we understand better?

Unit II—Evaluative Questions

(Continued from page 161)

3. Do we work in our community to preserve and improve natural and man-made beauty?
4. Do we travel more during leisure time?
5. Do we understand the geographic background of most activities?
6. Do we initiate discussions of the meaning of features seen in the countryside?
7. Did we try to discover ways people depend upon one another?
8. Do we realize people change their ways of living as they develop new desires, insights, and technology?



A PETROLEUM PROJECT JUST COMPLETED

UNIT IV

WHY HAS THE PETROLEUM INDUSTRY OF PENNSYLVANIA GROWN INTO A WORLD INDUSTRY?

Introductory

The following unit on the petroleum industry is an example of an experience unit showing how a study of a mineral resource in the Commonwealth may be made. The unit was prepared and developed in a secondary school located in the heart of Pennsylvania's oil-producing region. Junior high school pupils of this area are vitally interested in the petroleum industry because: (1) they are fully aware of the fact that the Indian oil pits and the first oil well, the Drake Well, are within

half an hour's drive of the school, (2) the oldest oil refinery in the world, Wolf's Head Refinery, is in this district, (3) Rocky Grove, the village in which the school is located, was built by employes of the Eclipse Oil Refining Company, (4) the best grade of oil in the world is found in the Patchel Run area nearby, and (5) the most valuable oil in the world is manufactured in the county seat, Franklin.

This unit provides many opportunities for pupils to use democratic procedures in the classroom, to improve in their abilities to study and to use the tools of learning in carrying on research, to use scientific methods in solving their problems, and to associate specific learnings with total educational experiences.

Part One shows how the unit was introduced, developed, and evaluated. Part Two shows in outline form the plan and procedures used in evolving the unit.

Overview

During the orientation period the teacher and pupils reviewed what had been learned about petroleum in earlier grades. The class discussed what they knew about gasoline and why all inflammable petroleum products must be handled carefully. With the teacher guiding their thinking, the pupils set up the major problem for investigation and a list of objectives very similar to those the teacher had included in her preplanning. Topics for study and questions for discussion were also listed. The class made plans for individual reports, committee work, field trips, interviews, resource speakers, and an exhibit.

Work Plan

Three committees were organized. One investigated petroleum in Pennsylvania and the Tri-State Area. A second studied petroleum production throughout the United States, and a third, petroleum production throughout the world. Letters were written to leading oil companies requesting free materials. Facts were gathered from these materials and from pictures, diagrams, maps, charts, graphs, and statistics. The films *Black Gold* and *Out of the Earth*¹ were shown. Field trips to the Drake Well, to the Wolf's Head Refinery at Reno, to the Chicago Pneumatic Tool Company at Franklin, and to the Indian Oil pits were taken. At the oil pits the pupils obtained samples of oil, using the method which the Indians used. Students made all arrangements for the trips: con-

¹ Ideal Picture Corporation, 28 E. 8th St., Chicago.

tacting personnel in charge of tours, obtaining permit slips from parents, and arranging transportation and lunch places. Letters were written to companies thanking them for materials and for field trips. Students interviewed scientists and laboratory technicians and reported to the class about the interviews. A salesman from one of the oil companies visited the classroom and told about the difficulties encountered in distributing oil abroad. A representative from an oil company gave a lecture and demonstration in a school assembly.

Each committee arranged an exhibit of pictures, maps, graphs, statistics, and sample bottles of oil. Committee reports emphasized the location of producing areas, the production method, and distribution methods, the uses, the future of oil production, and the need for conserving petroleum.

In evaluating the unit work, the teacher discovered that the business and manufacturing life of the community took on new meaning for each individual. Many of the pupils will remain in the community after graduation and will be employed by the petroleum companies. Knowledge of the world pattern of the oil industry will help those individuals to understand the true significance of their work. Pupils grew in ability to work democratically with one another, to solve problems, and to express their ideas in written and oral language and through the use of maps, graphs, pictures, and statistics.

Objectives

- A. To acquaint the individual with the work opportunities in the community
- B. To show how the natural resources of a locality provide work opportunities
- C. To show the relationship between the industrial life of the community and that of the country, state, nation, and world
- D. To show how the petroleum industry has influenced the growth of other leading industries in the community, state, nation, and world
- E. To develop respect for all workers engaged in industries dependent upon petroleum

Orientation

- A. Review previous work on petroleum.
- B. Discuss what pupils know about gasoline, the most important petroleum product.

- C. Set up objectives with pupils.
- D. List questions or topics for study.
- E. Plan with pupils study techniques.

Learning Period

- A. COMMITTEE INVESTIGATIONS AND REPORTS:
 - 1. Areas of petroleum resources
 - 2. Areas producing petroleum
 - 3. Production of petroleum
 - 4. Distribution of petroleum
 - 5. Uses of petroleum
 - 6. Future of petroleum
- B. VISUAL AIDS
 - 1. Pictures showing production methods
 - 2. Diagrams of earth formations
 - 3. Maps of producing areas
 - 4. Charts, graphs, and statistics of production
 - 5. Specimens of petroleum and by-products
 - 6. Samples of oil drilling equipment
 - 7. Moving pictures:
 - a. *Black Gold*
 - b. *Out of the Earth* (Chapter 3—oil and gas)
- C. FIELD TRIPS
 - 1. To nearby refineries
 - 2. To Drake Well and Park
 - 3. To Rock Bit Department, Pneumatic Tool Co., Franklin
 - 4. To Indian Oil pits
- D. INTERVIEWS AND RESOURCE SPEAKERS
 - 1. Students to interview salesmen, scientists, and laboratory technician
 - 2. Representative from oil refinery to give lecture and demonstration in assembly
- E. LANGUAGE CORRELATION
 - 1. Letter writing
 - a. To arrange interviews and field trips
 - b. To thank companies for materials
 - c. To thank companies and guides for field trips
 - 2. Vocabulary
 - 3. Group discussions
 - 4. Committee reports

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Culminating Activity—an Exhibit

A. PETROLEUM IN PENNSYLVANIA AND TRI-STATE AREA

1. Maps of resource areas, producing area, distribution
2. Pictures of drilling
3. Sample bottles of oil
4. Photographs of production processes

B. PETROLEUM IN THE UNITED STATES

1. Statistics showing rank of states in production
2. Maps locating fields
3. Sample bottles of oil

C. PETROLEUM IN THE WORLD

1. Statistics showing rank of producing countries
2. Maps locating producing areas
3. Sample bottles of oil
4. Pictures of production and distribution processes

Evaluation

1. Pupil evaluation of his own work in terms of objectives
2. Pupil evaluation of each other's work in terms of objectives
3. Teacher evaluation of pupil's work in terms of objectives

UNIT V

WHY IS PENNSYLVANIA A GREAT INDUSTRIAL STATE?*Overview*

To motivate interest in the study of Pennsylvania, to challenge the abilities of the best students and to give slow readers a better opportunity to participate in classroom activities, the pupils and teacher of one junior high school decided to experiment with the committee technique.

Objectives

In answer to the question "What are our needs at this time?" the class agreed upon these objectives:

1. To learn to use the school and community library for specific purposes
2. To improve skills in the use of the tools of learning
3. To learn to gather and organize information
4. To provide experiences which give opportunities for individuals to work in groups
5. To show the interrelations between the immediate environment and that of the state, nation, and world

Activities

Committees of five or six members were organized and a chairman for each was elected by the group. Every committee selected for a major topic a problem on an industry of Pennsylvania. The major problem was divided into subtopics and committee members volunteered to investigate the subtopics.

It was necessary to rearrange the furniture in the classroom so that committees could meet to discuss plans for investigating problems, for organizing information, and for presenting reports to the class as a whole.

A committee of students made arrangement with the school librarian for a lesson on the resources of the school library. At the suggestion of the librarian, the entire group spent a class period browsing in the library, locating the many reference books, periodicals, State publications, and newspaper files on Pennsylvania's work activities. A shelf was reserved for the class and materials relevant to the problems were stored here. This activity was most worth while. Previously, some of the students had seldom entered the library. Now all became acquainted with the library facilities and felt at home when working there.

Information was gathered from many types of learning tools including plaster models of anthracite, bituminous, and petroleum deposits, commercial museum exhibits,¹ the film *Magic of Coal*,² maps, graphs, and statistics.

To illustrate: the oral reports committees made a diagram of a blast furnace, located all important iron and steel centers on an outline map of Pennsylvania, borrowed an exhibit from a local steel company, showed the film *Picture Story of Steel*,³ and collected specimens of iron ore, limestone, bituminous coal, coke, and of the textiles manufactured in Pennsylvania.

Culminating Activity

The committee reports served as the culminating activity.

Evaluation

In evaluating the unit work and committee technique the class discovered that—

1. The values of working together in committee cannot be measured by a test on subject matter or content.
2. During this unit study, some members made their first contribution to the work of the class.
3. Interest and enthusiasm had motivated individuals to do extra work.
4. Individuals had learned how to use the library facilities.
5. Individuals had learned to gather information from a variety of learning tools and to organize and present materials in various ways.
6. An informal atmosphere in the classroom is best for committee work.

¹ Philadelphia Museum, Philadelphia.

² Association Films, Inc., New York City.

³ Iron and Steel Institute, New York City.

UNIT VI

HOW HAS THE ENVIRONMENT AFFECTED THE DEVELOPMENT OF TRANSPORTATION IN PENNSYLVANIA?*Objectives*

When planning a unit on the development of transportation in Pennsylvania the teacher's major objectives were:

1. To promote a more democratic classroom in which active, meaningful learning experiences focused upon the problems and concerns of adolescents can be realized
2. To provide learning experiences which give each student a feeling of success and enable him to establish social status among the other students
3. To provide an exhibit to be used in a community store window during Pennsylvania Week

The teacher wished to develop these major understandings:

1. Our transportation system has grown out of the needs of Pennsylvania's widely distributed people and natural resources
2. Our transportation system is constructed and maintained at great expense because of our natural environment
3. Since there is the constant expense of upkeep, we need to learn the best and most economical ways of maintaining our transportation system

Work Plan

During the orientation period, the class decided upon specific objectives, listed questions and problems for investigation, and planned the work period and the culminating activity.

It was decided that individuals would make more use of the library for reference reading and for leisure reading, get better acquainted with teachers and community leaders through conferences and interviews, and make specific contributions to class discussions.

Problems and topics for investigation and discussion emphasized the transportation patterns—rivers, lakes, railways, highways, air lanes, and pipe lines—in relation to population centers, industries, and natural resources.

Activities

To solve the problems and topics set up, the class made a collection of pictures which illustrated road building problems due to topography and drainage, and a collection of pamphlets concerning stream navigation and flood control. A letter was written to the Pittsburgh Chamber of Commerce for information about airport services. Field trips were taken to the Loyalhanna Dam to learn how flood waters are controlled, to the banks of the Conemaugh to study the stream as a transportation artery

and as a flood control area, and to a rural highway to discover the condition of the road and the problems involved in improving the roadbed. Pupils studied advertising in current magazines to find unique ways of illustrating their findings on posters for the exhibit. Committees of students built a model of a dam with flood control gates, made a map showing the location of navigable rivers in Pennsylvania, and made a graph comparing mileage of all types of transportation lanes in Pennsylvania. The students learned to read a highway map of the State and to measure distances by using the scale of miles. They also learned to read an airline schedule and to calculate the time required to travel from one point to another.

Culminating Activities

At the close of the work period, individuals and committees made reports of their findings and displayed the visual materials they had constructed and collected for the exhibit. The class questioned the authenticity of certain facts given in both oral and written reports and these facts were checked. Errors in reports were corrected. These criteria were used to evaluate the visual materials collected: Does the material contribute to the solution of the problem? Does the material show the problem in relation to the natural environment? Is the material suitable for an exhibit? Materials which did not meet the criteria were discarded. Selected materials were organized and arranged for the exhibit and displayed in a store window of the community during Pennsylvania Week.

Evaluation

The class found it necessary to evaluate the progress of the unit work frequently. The class outline of the work was revised during the learning period. At the close of the unit work, the students made an evaluation of each individual's contribution toward the solution of the problem and of the work of chairmen. They came to realize that items in the natural environment, the location of industries, and the population pattern of Pennsylvania helped determine the transportation system; that private and public funds must be spent wisely for construction and maintenance of transportation systems; and that health and safety laws must be enforced to protect the traveler. Diagnostic tests showed that the class had made progress in ability to gather information from various sources and tools, had been introduced to books and stories for leisure reading, and had made new contacts with teachers and community leaders.

UNIT VII

**WHY ARE THERE DIFFERENCES IN AGRICULTURAL PRODUCTIVITY
THROUGHOUT PENNSYLVANIA?***Preliminary Teaching*

- A. Introduction of the unit by:
 - 1. Class discussion of physical map and population map of Pennsylvania. Different types of land and the uses of land. Trips pupils had made, what they saw. Use of road maps.
 - 2. Motion picture from Pennsylvania Department of State (general view of Pennsylvania in color). Slides in color of farms in various parts of Pennsylvania.
 - 3. Pictures of Pennsylvania landscapes on the bulletin board and on the wall.
- B. Objectives
 - 1. To emphasize elements of social competence:
 - a. Desirable attitudes
 - b. Sense of fair play
 - c. Consideration of the rights of others
 - d. Respect for law and order
 - e. Ability to work together for the common good
 - f. Ability to think
 - 2. To develop the ability to recognize the interdependence of the people of Pennsylvania and other regions of the world
 - 3. To develop an appreciation of Pennsylvania as an agricultural state
 - 4. To develop in each student a sense of accomplishment and a plan of study
 - 5. To understand how density of population is related to the natural environment and to give a basis for understanding other parts of the world
 - 6. To increase ability to secure information from maps, graphs, pictures, actual landscapes, and to express such information in correct English in both oral and written reports
 - 7. To develop ability to use a variety of sources of information, comparing one with another

Orientation

- A. Class discussion was held on information necessary for understanding Pennsylvania agriculture. This was listed on the board by a student, mimeographed, and distributed the next day. Class set due date for each activity and appointed pupils to be checkers. Listed items for the checker to watch for. These were called minimum essentials.

- B. Each pupil selected a county in which his imaginary farm might be. No two chose the same county. Urban (discussion of the word) and forested counties eliminated by checking maps. Class listed minimum essentials for a freehand map of their county.
- C. Technique for checking activities suggested by class. Checker marked on class roll on the bulletin board the date when each pupil reported his activity. Blue if on time, red if late.

Learning Period

Time—three weeks. Each checker answered student questions about the activity he or she was checking. When every student had given one activity report, the checker gave the class a report on what errors were most common. When every student had given his second activity report, the checker that had been chosen by the class gave back the papers and gave a report on what errors were most common in the second activity. Class corrected mistakes before each pupil included the activity report in his notebook. Students were given study guide and proceeded on their own initiative.

Committee of three visited a feed store and gave to each class a report on what a Westmoreland County farmer buys and in what season. Reported to the classes.

Vocabulary committee met after school three times during progress of the unit to discuss best way of conducting discussion, what pictures in what references illustrated new words.

Report of student: "Seen from a bus window."

Culminating Activity

- A. Oral reports on crops (Used Items 6 and 11 of study guide sheet, pages 178, 179). Student in charge of class discussion called on two or three for each major crop.
- B. All activities incorporated in booklet to be corrected by the teacher and a committee of three from each class, chosen by the class. Marks on the booklet were determined by committee's discussion. Chairman of committee reported to class the method of marking on the day when booklets were handed back.
- C. Special emphasis upon activity 10 (page 179)—imagination, necessary facts, originality, and correct English.

Evaluation

- A. Evaluation by the class
 1. Discussion at end of unit on "What I learned to do in this unit which I could not do before."
 2. Notebooks checked by teacher with special attention to activity 10.
 3. General test,

- B. Classes seemed better able to develop their own plan of study. With student checkers the instructor had more opportunity to show individual students how to compare sources of information.
- C. Student checkers seemed to accept responsibility.
- D. From standpoint of content the unit was definitely worth while.

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McCartney— <i>Not Far From Pittsburgh.</i>	Department of Commerce booklet—
<i>Right Here in Pittsburgh</i>	"Pennsylvania Has Everything"

This is the Study Guide Sheet as used, showing spacing of dates, checkers, notes taken.

STUDY GUIDE SHEET

PENNSYLVANIA AGRICULTURE

Booklet should have table of contents.

1. Precipitation map of Pennsylvania. Minimum Essentials.
Due _____ Checked by _____
2. Agricultural activities map of Pennsylvania. Outline your county on each Pennsylvania map.
Due _____ Checked by _____
3. Physical map of Pennsylvania. Outline your county.
Due _____ Checked by _____
4. Two freehand crop production maps. Select two most important in your county. Give reference.
Due _____ Checked by _____
5. Two climatic charts: Pittsburgh, Pennsylvania, and the city closest to your county. Reference, *World Almanac* and *Pennsylvania Landscapes*.
Due _____ Checked by _____
6. Graph of the ten leading crops of Pennsylvania, six minimum essentials.
Due _____ Checked by _____
7. Circle graph of uses of Pennsylvania wheat crop.
Due _____ Checked by _____
8. Draw a freehand map of your county on large unlined paper.
 - a. One latitude line, one longitude line
 - b. Neighboring counties
 - c. Rivers or creeks
 - d. Scale of miles
 - e. Locate three largest cities with population figures
 - f. County seat
 - g. Color lightly to show physical features
 Due _____ Checked by _____
9. Read three references. List author, book title, pages read, any unfamiliar words. Write 15 sentences using these unfamiliar words. The sentence should show you know the meaning. Class discussion on vocabulary.

10. Write a good paragraph on your county, using assembled facts. Hunt up the facts first and write them on notes (notes to be included in booklet). Name of county, annual precipitation, rainfall during growing season, major crops grown and why, type of farming area, population and population density, percentage of rural population, percentage of land in farms, average January and July temperature. Temperature and rainfall for this month. Principal uses of land (p. 40, Davis). How your county was named.
11. Oral reports on the leading crops. Any one in whose county these crops are grown may be called on. Take notes upon reports for your booklet. Reporters talk from notes. They do not read report.
12. Pictures of farming activities, or of crops. Rotogravure sections of paper, farm magazines, seed catalogs. Your own drawings copied from bulletin board. Information on any historical place in your county. Make a calendar of a farmer's activities in your county

UNIT VIII

HOW DID WE GET OUR STATE BOUNDARIES?

Preliminary Teacher Planning

Many times questions come up in class about the boundary lines of Pennsylvania. Was Pennsylvania always the same size? How did we get the triangle of land along Lake Erie? How did the Mason-Dixon Line get its name? Any of these questions leads to a unit on boundary disputes.

Introduction

Looking at an outline map of Pennsylvania, we note its present boundaries. Although the eastern line is the most irregular, it is the only one which was not in dispute. We draw an outline map on the board as it would have looked if all colonies claiming parts of Pennsylvania had been able to establish their claims. We compare the two maps—the contrast usually interests the students, and they want to know more about it.

Objectives

1. To learn how the vague wording of early charters led to disputes with different colonies over land
2. To learn how these colonies settled their differences with Pennsylvania
3. To understand the effects on Pennsylvania as a state if one or all of these claims had been established
4. To learn that the right which the King had to grant land was the opposite of private individual's right today
5. To learn the importance of fixing exact boundary lines between states, counties, etc.

Orientation

An explanation of how William Penn, his heirs, and the authorities of Pennsylvania were plagued throughout the colonial period of the colony concerning the locations of boundaries, and that it wasn't until after the Revolution and the formation of a national government that the disputes were settled. The King had no surveyor's map; so he resorted to the old method of plotting land by degrees of latitude and longitude.

By comparing the maps of Pennsylvania and by giving only part of the information necessary to understand the boundary disputes of Pennsylvania, it is possible to arouse the student's curiosity. He wants to know the "whole story."

The objectives were all established later during the learning period or period of culminating activity.

Learning Period

Classes were divided into groups, each looking up material on the dispute with: Maryland, Virginia, Connecticut, New York. They were to find: Wording of individual charters, intensity of dispute, how it was settled, etc.

Individual reports on: "Running the Mason-Dixon Line," "Cresap's War," "Yankee-Pennamite Wars," "Washington in Pennsylvania—Fort Necessity," "Acquiring the Erie Triangle." Some of these reports could be related to present-day activities. For example, we discussed the difference in surveying instruments of today and of the colonial period, and the returns we have realized from the Erie Triangle.

Each student made a map of Pennsylvania, showing the different sections claimed by other colonies. Some pupils cut pieces of paper of different colors and pasted them on the map in "jig-saw" puzzle fashion; others used crayons or certain symbols to represent the areas.

Students were encouraged to tell of present-day land disputes which they knew about.

Library research; interviews (in connection with any present-day disputes in or near our community).

Culminating Activities

Reports; discussion; display of maps (on bulletin board).

Evaluation

After we had covered the unit a map test was given. Each student was asked to draw an outline map of Pennsylvania from memory and draw in the sections claimed by the various colonies in the order listed on the board; also to draw in the area purchased from the United States Government in 1792.

According to results of the test, the majority of the class developed the mastery inherent in the central objective.

Each student (with few exceptions) responded during the learning period, contributing his share to the class study. They liked the map work better than the other activities.

About seven class periods (study of text included) were used.

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UNIT IX

**HOW HAS THE GEOGRAPHY OF PENNSYLVANIA BROUGHT
US PROSPERITY?***Overview by Teacher and Planning with Pupils**Objectives*

1. To develop an understanding of how people working together all benefit from industrial development
2. To show how industrial growth depends on profits and hard work
3. To appreciate the place and status of labor unions
4. To learn about occupations, pay, and training in the industries which are studied
5. To develop an understanding of advertising and salesmanship and discrimination in buying
6. Other objectives developed by pupil-teacher planning

Activities

1. Prepare composite map or series of resource maps of Pennsylvania. Show major resources, such as coal, iron ore, oil, gas, water power, and timber. Which of these are found in the local community?
2. Construct a series of bar graphs showing the rank of the six leading industries in the State and the trend in the production of coal, steel, oil, and electric power at ten-year intervals since 1900. Study the financial page in a daily paper and note what dividends these stocks pay.

3. Bulletin board display of noted inventors and inventions.
4. Visit the local stock exchange, if convenient.
5. Illustrated notebook or cutout booklet or oral report of some major industrial product, such as petroleum or coal, stressing its early development, how it became a major industry, the uses to which it is put, and how it affects our living. Include what possibilities for investment exist.
6. Visit a local industry.
7. A vocational interest inventory in the form of a classroom exhibit, individual and committee reports on State and local job opportunities in fields which geography touches.
8. Talk by an employment manager on what he wants in the people he hires.
9. A "Yesterday and Today" illustrated chart showing how certain things were done one hundred years ago and how they are done today.
10. Talk to class by a forester or conservationist.
11. A bar graph showing the trend in immigration in Pennsylvania by decades from 1880 to the present, with an accompanying text explaining the restrictions that were placed upon it.
12. A bar graph showing the trend toward urbanization at intervals since 1860. Discussion on the social problems created.
13. Other activities suggested by pupils.

Content

1. Our abundant resources are put to use:
 - a. Steel, petroleum, and electricity are produced.
 - b. More and better goods are made for the farm and home.
2. Improvements are made in transportation and communication:
 - a. Railroads carry the goods of the nation.
 - b. Automobiles and airplanes increase the pace of living and working.
 - c. There is rapid communication for business and pleasure.
3. The growth of commerce and trade:
 - a. Advertising the goods of the nation.
 - b. New methods of merchandising goods.
4. People from many lands find America a land of opportunity.
5. The rise of cities in the industrial age.
6. What does this development mean to us today?

Culminating Activities: Pupil reports, exhibits, etc.

Evaluation: See Chapter IV

SECTION 4
GRADE TEN

**HOW CAN WE USE AND CONSERVE OUR NATURAL
AND ECONOMIC RESOURCES?**

Scope

Economic geography in the high school is a study of major industries, major commercial regions, and economic problems of the leading nations of the world and how they are related to the distribution of the earth's resources. It considers environmental conditions and interprets the earth in terms of its usefulness to mankind. It deals with materials and problems which are of concern to all citizens and which affect our daily living, business relations, and the policies of government.

In the suggested unit titles and in the sample units the aim has been directed toward developing an understanding of people and nations who have been brought into a closer economic and cultural contact by rapid transportation and speedy communication.

Illustrative units that follow have been chosen because they are representative of a particular phase of work.

The teacher may choose to try them as they are presented or, because conditions are different, may want to evaluate them in the light of unique needs, and logical development, and to use only such parts as are pertinent to immediate problems.

Suggested Unit Titles

1. Who produced the food we ate today and what should we know about the areas where each was produced and about other food-producing areas?
2. What are the sources and uses of materials needed in the different industries of our community and other communities?
3. How does the distribution of natural resources help to determine the location of basic industries within a nation?
4. How does the distribution of economic resources affect human living?
5. What do the coal industry and other industries mean to us and to the people of our country?
6. How can our standard of living be improved by buying and selling products abroad?
7. What products significant in world trade are the result of scientific advancement, invention, and skill of the people?

8. What factors cause some areas of the world to have a surplus of food and other areas a deficit?
9. What place does agriculture have in the economy of our nation and other nations of the world?
10. What can I learn from the study of conservation that will enable me to help make my community a better place in which to live?
11. How can the wise use of natural resources improve the standard of living of all people?
12. What are the physical and economic problems of transporting commodities from one country to another?
13. How do cultural and natural factors help to determine the location of cities?
14. How can we develop a better understanding of the location and natural resources of our country in relation to those of other nations?

Illustrative Units

These units may be readily adapted for local use.

- | | | |
|------|------|--|
| UNIT | I: | What Is the Value of Petroleum and What Is Its Future? |
| UNIT | II: | What Does the Coal Industry Mean to Us and to the People of Our Country? |
| UNIT | III: | Why Is Cotton So Important? |
| UNIT | IV: | How Does My Future Depend On the Use of Our Natural Resources? |
| UNIT | V: | How Does the Fishing Industry Influence Our Way of Living? |
| UNIT | VI: | How Has Geography brought the World Together? |
| UNIT | VII: | How Does the Geography of Pennsylvania Provide Opportunities for Employment? |

UNIT I **WHAT IS THE VALUE OF PETROLEUM AND WHAT IS ITS FUTURE?**

I <i>Needs and Problems of Youth</i>	II <i>Needs in Which the Unit Can Help</i>	III <i>Objectives Related to Needs</i>
Salable Skills	To create skills for production—become engineer, etc. To learn how dry cleaning, chemical, drug, building and other industries are a result of the use of petroleum.	To learn of the economic influences of the producing areas. To learn about wage scales and various skills.
Good Health	To learn how the oil industry contributes to: a. Healthful living. b. Higher living standards.	To study the necessity of safety in securing and marketing petroleum.
Citizenship	To practice conservation in this industry.	To realize the obligation of the nations of the world to each other regarding petroleum exploitation. To learn why nations will go to war to secure petroleum.
Family Living	To learn how petroleum contributes to the comforts and luxuries of family living and to society in general.	To realize that petroleum has greatly influenced the living conditions of the family.
Consumer Education	To learn what to buy, why prices vary, why prices increase or decrease.	To study the significant problems in production, refining, transportation, and marketing.
Scientific Methods	To learn why and how petroleum influences human life.	To learn of the contribution petroleum makes to: a. Science of farming. b. Chemistry. c. Transportation.
Appreciation of Beauty	To learn how to study the landscape when traveling.	To learn the problems of exploration, discovery, development, and utilization of petroleum.
Leisure	To learn to use leisure time wisely.	To obtain a greater depth of culture through travel made possible by modern transportation.
Respect for Others	To learn to respect others and be tolerant regardless of race, creed, or color.	To learn that petroleum contributes to more and better recreational facilities.
Communication Skills	To interpret the material he reads and to learn to think rationally, so that he is not swayed by propaganda.	To consider the problems of the oil worker in our own country and other countries. To increase the ability of the student to think clearly and logically.

<p style="text-align: center;">IV <i>Content Outline</i></p>	<p style="text-align: center;">V <i>Living and Doing Learning Activities</i></p>
<p>Formation of Petroleum</p> <p>Where Petroleum is Found</p> <p>History of Petroleum</p> <p style="padding-left: 20px;">A. Early history of the oil industry in the states of Pennsylvania and New York</p> <p style="padding-left: 20px;">B. Early refineries; refineries today</p> <p style="padding-left: 20px;">C. Early uses—medicine and lighting</p> <p style="padding-left: 20px;">D. The expansion of the uses of petroleum in the past fifty years</p> <p style="padding-left: 20px;">E. Variety of uses for petroleum products today</p> <p>Location of Petroleum Fields</p> <p style="padding-left: 20px;">A. Fields in the U. S.</p> <p style="padding-left: 20px;">B. Fields in other countries</p> <p>The Securing of Petroleum</p> <p style="padding-left: 20px;">A. Description of an oil field</p> <p style="padding-left: 20px;">B. Methods of drilling and bringing in a well</p> <p style="padding-left: 20px;">C. Refining</p> <p style="padding-left: 20px;">D. Storage and transportation</p> <p style="padding-left: 20px;">E. Uses of oil</p> <p>The Political Geography of petroleum</p> <p style="padding-left: 20px;">A. Nations controlling the various fields, developed and prospective</p> <p style="padding-left: 20px;">B. Reasons for rivalry</p> <p style="padding-left: 20px;">C. International problems involved in the struggle for oil</p> <p>The Future of the Petroleum Industry</p> <p style="padding-left: 20px;">A. The continuously rapid increase in the amount used</p> <p style="padding-left: 20px;">B. Geographic reasons why production is difficult to control</p> <p style="padding-left: 20px;">C. Why the possible production of any field is uncertain</p> <p style="padding-left: 20px;">D. Conservation of petroleum</p>	<p>1. Class discussion</p> <p>2. Field strips</p> <p>3. Visual Aids</p> <p style="padding-left: 20px;">a. Filmstrips</p> <p style="padding-left: 20px;">b. Slides</p> <p style="padding-left: 20px;">c. Films</p> <p style="padding-left: 20px;">e. Pictures</p> <p>4. Preparation of Maps</p> <p style="padding-left: 40px;">Location of petroleum fields, pipe lines, refineries, shipping routes</p> <p>5. A visit from a worker in the petroleum industry</p> <p style="padding-left: 20px;">a. Gas station attendant</p> <p style="padding-left: 20px;">b. Gasoline truck driver</p> <p>6. Correspondence with oil industry firms—domestic and foreign</p> <p>7. Reports by student committees on</p> <p style="padding-left: 20px;">A. Exploration</p> <p style="padding-left: 20px;">B. Discovery</p> <p style="padding-left: 20px;">C. Production</p> <p style="padding-left: 20px;">D. Transportation</p> <p style="padding-left: 20px;">E. Refining</p> <p style="padding-left: 20px;">F. Utilization</p> <p>8. Culminating Activities</p> <p style="padding-left: 20px;">Room exhibits of committee work: Maps, charts, model of an oil well, murals, etc.</p>

VI
Materials and Books

1. *Economic Geography for Secondary Schools*—Colby and Foster
2. Statistical abstracts
3. Pamphlets published by oil companies
4. Highway maps
5. Encyclopedias
6. *National Geographic Magazine*
7. Current Events
8. Pictures
9. Films
10. *Reader's Guide*
11. *World Almanac*
12. *World Atlas of Commercial Geography*
13. *Commerce Yearbook*—U. S. Department of Commerce
14. Graphs showing
 - United States production of crude oil and refined products
 - World production
15. Maps showing world commerce—United States shipment of crude and refined petroleum
16. Maps showing
 - a. Pipe lines
 - b. Refining centers
 - c. Importing centers
 - d. Exporting centers
 - e. United States producing areas
 - f. World producing areas
 - g. United States consuming areas
 - h. World consuming areas
 - i. Climate
 - j. Topography

VII
Evaluation (pupil-teacher)

1. Map reading was further developed.
2. Timetables were read.
3. Graph reading was developed.
4. Prices and values were noted.
5. Interpretation of statistics improved.
6. Location — place geography improved.
7. Better understanding of the other person's problems was realized.
8. Distances and directions were studied.
9. Relationships between resources and topography were noted.
10. Competition for this commodity became a reality.
11. Political aspects were observed.
12. There was a better understanding of the value of natural resources and the need to conserve them.
13. Uses of foreign capital and exploitation were discussed in regard to value or hindrance to the areas.
14. The operation of the large companies (profits, wages, etc.) was studied.
15. Methods of transportation were studied.
16. Letters were written for materials needed.
17. Use for various types of engineers was noted.
18. Art was better appreciated.
19. New petroleum products, plastics, etc., were studied.
20. Taxes and their uses were discussed.
21. Dependence of this industry on others and others on this showed the interdependence of industries.
22. More reading was needed for comprehension.

Concluded:

23. This is truly a "Petroleum Age"—on land, at home, on the sea, and in the air.

UNIT II

WHAT DOES THE COAL INDUSTRY MEAN TO US AND TO THE PEOPLE OF OUR COUNTRY?*I. Objectives (to be expanded and made meaningful by pupil-teacher planning)**A. Changes or continued improvement in the personal and social behaviors of the students.¹*

1. To gain a feeling of security by having his own work accepted by the group, thus gaining a feeling of respect essential in a democracy
2. To gain skills in cooperative planning and learning activities
3. To develop self-direction in searching for answers to questions and achieving goals set up by the class
4. To learn to think creatively by means of thinking and acting on self-applied projects
5. To develop the sense of value of living, learning, and sharing learnings as a member of the class
6. To help pupils solve problems—by acquiring skills, by recognizing problems, and by deciding intelligently how to solve problems
7. To evaluate his behaviors and achievements continually

B. Geographic Understandings

1. To understand that the coal industry is a very important factor in the economic life of the people of Pennsylvania, the United States, and other parts of the world
2. To understand the importance of the coal industry in our everyday lives
3. To understand that most industrial areas owe their existence in part to their nearness to coal fields as sources for fuel
4. To appreciate the relation of the mining industry to the prosperity of our community, state, and nation
5. To understand some problems confronting the miner, operator, and consumer of coal

II. Introduction

- A. A committee had been formed about four weeks before the beginning of the unit to write to various places for materials on coal. They had gathered specimens, books, magazine

¹ Based on objectives set forth in, "Toward Better Teaching," 1949 Yearbook, Association for Supervision and Curriculum Development, National Education Association, Washington, D. C.



A COMMITTEE WORKS ON ITS SPECIAL PROJECT

articles, and pamphlets and had received letters concerning the coal industry. This committee of four, together with four others who were asked to help, evaluated the material. They divided the material into three different groups: (1) excellent, (2) usable, and (3) probably of little use. This material was brought to class on the day the unit was to be discussed. It was displayed on the study table.

- B. In a class discussion, led by a student, the coal industry and the effects of the coal strike were discussed. (At this time the coal strike was in full swing.) The following effects of the strike were considered:
1. Library in New York closed because of the lack of coal.
 2. Schools were closed.
 3. Industries were less productive.
 4. People suffered from cold.
 5. Coal in Chicago sold for \$1.00 a bushel.
 6. People were starving and suffering because of the lack of money.

- C. Pictures, maps, graphs, newspaper clippings, and other items of interest were displayed on the bulletin board. A committee was formed to post additional materials as the unit progressed.

III. Pretest (Questions)

The class chairman conducted a class discussion on the unit. Every pupil participated. Many questions concerning the coal industry were asked by the students. The following are a few of the questions:

1. What is the origin of coal?
2. What was used for fuel before coal?
3. What are the different kinds of coal?
4. How is coal mined? What different methods are used?
5. Where in Pennsylvania is coal mined extensively?
6. Where in the United States is coal found? Elsewhere in the world?
7. How does the United States rank among the nations in the production of coal?
8. What is the average annual output of coal in the United States? How is this coal used?
9. How do the different methods of transportation affect the coal industry?
10. What cities in our world owe their existence in part to the presence of coal?

IV. Activities

A. Community Contacts

1. A coal miner, who had also worked in the mines of England, was invited to speak to the class.
2. A committee interviewed the workers at the barges to learn why the coal from our community was transported by river.

B. Oral and Written Activities Correlated with English

1. Committees reported their findings to the class.
2. A letter was written to the coal miner inviting him to speak to the class.
3. The class divided into committees to study the geography of the coal industry in the following regions:

a. Pennsylvania	e. Asia
b. United States	f. South America
c. Great Britain	g. Africa
d. Continental Europe	h. Australia

Detailed reports were written on the above areas.
4. Vocabulary lists were kept.
5. Geographic relationships were discovered and written.

C. *Activities Correlated with Art*

1. Many kinds of maps were made.
2. Pictures related to the unit were collected and others were drawn.
3. Booklets and charts were made.
4. Illustrations were drawn to show different methods of mining.

D. *Activities Correlated with Mathematics*

1. Different kinds of graphs were made.
2. Statistical tables were studied and used.
3. Weights, measurements, and distances were determined.

V. *Evaluation*

- A. A committee met with the teacher and questions evolving from the objectives were formulated. These questions were mimeographed and given to the students to investigate and each child discussed the answers with the teacher.
- B. Students evaluated all booklets and projects.
- C. Committee reports were evaluated by the students. They checked the reports for—
 1. Sources of information used
 2. Amount of explanation
 3. Originality
 4. Extent of group participation
 5. Value of the report to the class

VI. *Bibliography*

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World Almanac

World Book



STUDY GROUP USES COTTON EXHIBIT FROM SCHOOL MUSEUM

UNIT III

WHY IS COTTON SO IMPORTANT?

Overview by Teacher and Planning with Pupils

Objectives (to be expanded and made meaningful by pupil-teacher planning)

- A. To understand how climate, soil, and other natural factors help to limit the growth of cotton to only a few world areas
- B. To understand the importance of cotton cloth as an article of trade
- C. To understand how major economic activities are related to the natural environment
- D. To understand the interdependence of people in providing and obtaining raw cotton
- E. To help pupils to see the relationship which exists between factors of nature, production, and exchange

Orientation

- A. Prepared an exhibit on cotton—cotton boll, seeds, thread, cloth, and pictures of articles made from cotton
- B. Displayed pictures of cotton production and manufacturing
- C. Placed on the bulletin board maps showing producing areas, consuming areas, and trade routes
- D. Brought books from the library and arranged them on table for research work

Procedure

The class divided into committees which searched for information on the following topics and reported their findings to the class. After their presentations they led a class discussion on the problems and questions that arose out of reports:

- A. Growing and Marketing
 - 1. Location and extent
 - 2. Natural factors which determine our cotton belt
 - a. Climate—temperature, precipitation, length of growing season, and relative humidity and cloudiness
 - b. Terrain and soils
 - c. Access to seacoast
 - 3. Major problems of the cotton belt
 - a. Economic problems
 - b. Social problems
 - c. Health and disease—human and plant
 - d. Soil erosion, floods, etc.
 - 4. Marketing the cotton crop and its by-products
 - a. Amounts used in United States cotton mills
 - b. Amount exported
 - c. Preparation for export
 - d. Cotton ports
- B. Cotton in World Trade
 - 1. Major cotton growing areas of the world and factors which determine their location
 - 2. Conditions which influence world movements of raw cotton and cotton products
 - 3. Major ocean lanes of world traffic
- C. Trends in cotton production in the United States and geographic reasons for fluctuations
- D. Chief articles made from cotton
- E. Leading cotton manufacturing areas and geographic factors which account for their location
- F. Cotton textile industry of the United States compared with that of other world regions

Activities and Illustrations

- A. Reports by students
1. Where cotton is grown
 2. The uses of cotton in our daily lives
 3. The natural environment needed or desirable to grow cotton
 4. The cultural effect that cotton has produced in the regions where it is grown
 5. How synthetics may affect the cotton market
- B. Motion pictures
1. "King Cotton" (10 minutes)
How it is grown, picked, and made ready for export
 2. "Cotton in Our Everyday Life" (10 minutes)
How it is processed and used in our everyday life
- C. *Pictures, maps, graphs, and slides* used by the students to illustrate reports and discussions
- D. *Field trip* to the local and nearby weaving and processing mill
- E. Other major fibers that we use in our everyday life will be discussed in the same manner. To help the student acquire the proper knowledge concerning the unit, a chart will be kept by each student which will be set up as follows:

	<i>Fiber</i>	<i>Natural Environment</i>	<i>World Regions</i>	<i>Uses</i>	<i>Miscellaneous</i>
1.					
2.					
3.					
4.					
5.					

Evaluation

- A. Individual reports
1. Organization
 2. Presentation
 3. Content (relationships)
 4. Use of available materials
- B. Bulletin board
1. Current news
 2. Pictures relating to the topics being discussed
- C. Notebooks
1. Rather complete coverage of all activities that have taken place and other information that the student has gained by outside reading
 2. Also grade on standard outline or chart
- D. Unit Quiz
- Test for relationships by objective questions

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UNIT IV

**HOW DOES MY FUTURE DEPEND ON THE USE OF OUR
NATURAL RESOURCES?****I. Objectives****A. STUDENTS' AIMS**

1. To study each individual's need for being intelligent about our natural resources and their conservation. This develops into a community need, then into a need for the nation, and finally into a need for various peoples of the world
2. To see the need for the organization of groups to educate for conservation, thus enabling us as individuals to recognize waste and attempt to overcome it
3. To promote world cooperation and peace through the intelligent use of our natural resources
4. To learn the relationships which must exist among workers, as well as producers, in order to facilitate proper use of our resources
5. To study current evidences of waste in our community, state, and nation

B. TEACHER'S AIMS

1. To guide the students in organizing the unit: field trips, where feasible; panel discussions; research by means of library references, community organizations, individuals, etc.
2. To provide motivation of students
3. To enable each student to accomplish his task according to his level of ability

II. Overview

The unit method should be used in developing this problem. At the beginning of the work, the group should be organized into various committees, whose combined efforts result in a more complete learning situation. Encourage the students to volunteer for committee work. Clerical, bulletin board, library research, project, supplies, clean-up, and other committees may be organized. The teacher should never do all

of the planning for any unit, but should present a skeleton plan which is further developed by the class. Help of the students in setting up the unit will serve as a motivating influence also.

The first few days will be spent by the group setting up objectives, formulating plans, and assembling material for the work. After the study period, reports by the students assigned to the library committee or by those doing research in the community will be given. The clerical committee will take notes on the report. Each member of this committee has charge of getting one report, such as (a) explanation of the bulletin board display, (b) write-up of museum display pieces, (c) keeping a record of group discussions and question-and-answer forums, and (d) organizing material from special reports. The bulletin board committee will arrange necessary museum-type displays. The end of each class period should be used for the clerical committee to sum up the happenings of the day. The chairman of this committee makes this report. The other students should be looking over their own notes and making any necessary additions or corrections.

Unit teaching develops the abilities of every student in the group. Quite often the teacher discovers unused or unrecognized abilities of the student.

III. *Knowledge of the Community*—Essential information that will help in development of the unit

A. Social Conditions

1. Take into consideration racial groups, community organizations, social institutions, religious life, and educational facilities
2. Study community relationships in various parts of the area under consideration
3. Study community industries and their relation to the natural resources
4. Have a general idea of the type of books, magazines, etc., read within these areas
5. Learn the amusements within these groups
6. Study the leisure activities of the community members

B. Economic Conditions

1. Kinds of homes
2. Industries
3. Business life of the area
4. Home conveniences
5. Civic pride
6. Response to charitable organizations

C. Health and Sanitary Conditions

1. Sewage disposal
2. Water supply
3. Garbage disposal
4. Welfare and relief agencies
5. Hospitals, clinics, etc.

- D. Transportation and Communication
 - 1. Kinds
 - 2. Lighting facilities within the area
 - 3. Easy access within and into the community
 - E. Change since the war years
 - F. Possible changes of industries through scientific discovery
 - G. Evaluation of the community as a place to develop character and prevent delinquency and crime
- IV. *Community Check List for Contacts that will Help our Study on Conservation*
- A. Farm Bureau
 - B. Agricultural Cooperative Association
 - C. The Pennsylvania State College Extension Agency
 - D. 4-H Clubs
 - E. Future Farmers of America
 - F. Sportsmen's Association
 - G. Businessmen's Club
 - H. Bureau of Sanitation
 - I. Board of Health
 - J. Mine offices
 - K. Boy Scouts
 - L. Girl Scouts
 - M. High School
 - N. Adult education groups
 - O. Kiwanis, Rotary, Lions clubs
 - P. Women's clubs
 - Q. Business and Professional Women's Club
- V. *Approach to This Study*
- A. Panel discussions
 - B. Committee reports
 - C. Films
 - D. Field trips
- VI. *Development of Problem*
- A. Conservation of Wildlife in Pennsylvania
 - 1. Acquisition of new game lands each year
 - 2. Improvement of wildlife environment on various game lands
 - 3. Legislation
 - 4. Land operation, maintenance, and expansion

- B. Soil Conservation
 - 1. Need for erosion control
 - 2. Causes of erosion
 - 3. Ways to reduce erosion
- C. Forest Conservation
 - 1. Areas suited to the growing of trees
 - 2. Evolution of the forest industry
 - 3. Selective harvesting of timber
 - 4. Increasing production of new wood
 - 5. Control of forest fires
 - 6. Industrial forest land
 - 7. Assistance to farmers by foresters
 - 8. Flood control
 - 9. Increasing supplies of clear water
 - 10. National forests and national parks
- D. Conservation of Water Resources
 - 1. Nature's greatest resource
 - 2. Flood control
 - 3. Polluted water
 - 4. Current problems
- E. Conservation of Our Mineral Resources
 - 1. Coal
 - 2. Oil
 - 3. Natural gas

For each of the above, study the following:

 - a. Nature: First storehouse
 - b. Local fields
 - c. Science's contribution to these industries
 - d. Legal situations
 - e. Uses of by-products

VII. *Pupil-Teacher Work Plan*

Stated in the overview

VIII. *Related Activities*

A. English

The work of the clerical committee could be evaluated by the English department. By this plan, instead of having a large group to be checked, only a few at a time would be involved.

B. Science

- 1. Botanical information could be studied in the work on soil and lumber conservation
- 2. The section on wildlife should be supplemented in the biology classes.
- 3. Scientific methods of mining should be required for the study of mineral resources.

C. Mathematics

1. A special unit on agriculture might include
 - a. Costs of production
 - b. Figuring net profit
 - c. Farm management
 - d. Cooperative marketing
2. A study of weights and measures—surface, volume, and capacity, weight, measurements of solids, measuring lumber, metric system, etc., will give a much needed background for all phases of this conservation unit.

D. Language

In the study of any foreign language, the history, culture, and geography of the area from which the language came is studied. Any phase of conservation might be studied.

E. Art

1. Posters
2. Road signs
3. Brochures
4. Illustrated pamphlets
5. Book illustrations
6. Scenery and costuming for pageants

IX. *Culminating Activities*

- | | |
|-------------------|----------------|
| A. Exhibits | E. Debates |
| B. Pageants | F. Collections |
| C. Dramatizations | G. Booklets |
| D. Demonstrations | |

X. *Evaluation*

A. Pupil

1. Cooperation
2. Leadership
3. Broadened outlook
4. General change of attitudes
5. Sense of responsibility
6. Skill in seeking and finding data
7. Ability to organize material and to present it to a group
8. Better use of community educational materials
9. Contact with business
10. Opportunities to know people of prestige and authority

B. Teacher

1. Opportunity to see his students in places of leadership
2. Chance to learn previously unrecognized abilities of students
3. Close and friendly contact with pupils
4. Guidance opportunities

C. Tests

1. Use for diagnostic purposes. Reteach. Retest.
2. Avoid "yes" and "no" answers and other types of guessing questions.
3. Give subjective type of questions. Evaluate with points.

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UNIT V

HOW DOES THE FISHING INDUSTRY INFLUENCE OUR WAY OF LIVING?**I. Foreword**

The purpose of this unit is to enable pupils to gain an understanding of the geographic and economic factors which have influenced the development of the fishing industry. Pupils should understand that the term "fisheries" includes all the occupations which have to do with obtaining useful products from the waters. Pupils should appreciate the adjustments the North American fisherman had to make at the close of World War II when the demand for fish and the price range took a sudden drop. The pupils should also recognize the relationship between the increase of fishing for sport and such labor factors as shorter hours and increased pay.

II. Objectives

To understand the factors which led fishermen to become explorers
To lead pupils to discover the most important fishing grounds of the world and why they have become the chief centers of the fishing industry

To appreciate the hardships, difficulties, climatic factors, loneliness, and economic uncertainty of a fisherman's life

To lead the pupils to realize the critical food problem of countries such as Japan and China

To learn that the habits of fish are very different, and thus many different fishing methods are required

To bring out the necessity for the conservation of fish life and how the world would be affected if its supply of fish and shellfish were cut off

To understand the importance of fish in the diet and how to buy fish in order to get value received

To develop an interest in sport fishing as a means of bringing about a closer family relationship

To develop a sensitivity to the scenic beauty of our state and country and at the same time lead the pupils to understand that they must accept responsibility in preserving this scenic beauty

III. Scope of the Unit

- A. Fishing led men to venture out upon the ocean in boats. Fisheries provided first schools for seauanship.
- B. Fishing nations became exploring nations and in this way got control of distant and unknown lands.
- C. Some nations turned to the sea for a livelihood when adverse nature made it difficult to make a living from the land. This

in turn led to trading and development of merchant marines. Thus fishing centers became trading centers. Although many fishermen turned to other occupations, there still remained a large group whose love for the sea never lessened regardless of all the hardships involved. Methods and equipment have developed until today they are as modern as those of other industries. Labor conditions also have kept pace with other occupations. The employment of many people depends upon the fishing industry. These include:

1. Preparation of fish products
2. Transporting of fish products
3. Clerical work involved
4. Advertising, etc.

- D. Kinds of fish are much alike in all fishing grounds.
- E. Because of *overfishing* the leading fishing banks, some new species of fish are now being used for food. Also, on account of the absence of various fish in their regular fishing grounds, more research study is being done to learn the causes of this absence so as to insure future generations of an ample supply of fish. Laws of conservation have been enacted in order to meet the needs for certain types of fish such as the salmon. The increase in sport fishing has augmented the food supply of many families and at the same time has provided a cheap, nutritious food.

The need of tropical lands for fish products increases trade between the tropical and middle latitude lands.

IV. *Approach*

- A. During a discussion period in a former unit a student spoke about coming home from Pittsburgh and seeing people fishing along the Citizens Water Company Dam. A student raised his hand and asked if we could study fishing as our next unit. Immediately several hands went up, indicating that others also wished to study fishing.
- B. The first period was spent in planning and asking questions. We decided to use the following questions as a starting point:
1. What is a fisherman's life like?
 2. What difficulties does a fisherman meet?
 3. How much money does a fisherman make?
 4. What are the different kinds of fish?
 5. Where are the fishing grounds?
 6. What do they do with the fish when caught?
 7. How do they spend their leisure time?
 8. What is inshore fishing? Offshore fishing?
 9. Does a fisherman do anything else but fish?

10. What equipment do fishermen use?
11. What is a diver's life like?
12. Where do divers live?
13. What are shellfish?
14. In what kind of water is fishing done?
15. How are fish sold?
16. What do fishermen do in a storm?
17. What clothes are used for fishing?
18. What kinds of boats are used for fishing?
19. What kind of fish are caught in this community?
20. Where can fresh fish be bought in this community? At what prices?
21. What fish dishes are on restaurant menus?
22. How are fish prepared for eating?
23. What countries eat the most fish? Why?
24. Why do people engage in fishing for sport?
25. What different methods of catching fish are used?
26. What are the different kinds of flies and how are they used and why?
27. Demonstrate the use of a fishing reel.
28. Work out a project showing what fish eat.
29. Why are there fish hatcheries?

V. *Procedure*

- A. Class divided itself into groups for the working period.
- B. Each group chose the questions in which they were especially interested.
- C. Each group chose a chairman and started working on their topic.
- D. Then they decided to hold a general work session to help each other.
- E. Each member in the group wrote up his findings and then the material was pooled, organized, and the results written as one paper.
- F. Following the suggestions of the art instructor, they drew or painted an attractive cover for each of their articles.
- G. They searched the library, their homes, the community, for all available specimens and gathered information from merchants, sportsmen, and others.
- H. Each group in preparing their reports attempted to outdo the others.
- I. Posters were made.
- J. The groups presented their first reports to the class.
They were criticized constructively, as follows:
 1. The one reporting should be able to read it better.
 2. The one reporting should tell it rather than read it.

3. The one reporting should do more research work.
4. The group were asked questions they couldn't answer.
So as each group reported, they asked if they might do more work on their reports.

When they had everything completed to their satisfaction, final reports were given.

- K. The pupils were anxious to present their unit to someone else. So the principal was invited to observe them.
- L. The groups which presented the best work gave their demonstrations before other 8th grade classes.
- M. The five outstanding groups were photographed by the Camera Club.

NOTE: We just had to stop because they wanted to go on and on.

VI. *Summary*

A. Livelihood—Commercial Fishing

1. World Fishing Grounds
Cool water—Warm water
2. Kinds of Fish
Cool water—Warm water
3. Fish Food
4. Fishing Equipment: boats, etc.
5. Methods of Catching Fish—Inshore and Offshore
 - a. Trawl Line
 - b. Nets
 - c. Traps
 - d. Dredges
6. Methods of Preparation for the Market
7. Fisherman's Life
 - a. Difficulties
 - b. Clothing
 - c. Leisure time
 - d. Income
 - e. Future
8. Methods of Selling Fish
9. Products of Fish
10. Fishing Ports and Cities

B. Recreation

1. Regions for Sport Fishing
 - a. Local
 - b. State
 - c. Out of the State
2. Kinds of Fish
 - a. Local
 - b. State
 - c. Out of the State

3. Methods Used in Sport Fishing
4. Laws Governing Sport Fishing

VII. *Activities*

Drew or painted covers for their articles.
 Wrote letters to secure information to answer the student's questions.
 Interviewed many people to get firsthand information.
 Gave demonstrations of their work.
 One group presented theirs to the Geography Study Group of western Washington County.

VIII. *Evaluation by Students*

Learned to cooperate by working in groups.
 Everyone enjoyed helping those who were having difficulty.
 Gained practical knowledge in interviewing.
 Learned to be more selective in choosing pictures and illustrations.
 Learned to do research work.
 Developed self-confidence in reporting before a group.
 Received practical experience in writing letters.
 Received experience in acting as leaders and chairmen.
 Enjoyed giving demonstrations.
 Gained a desire to start a hobby.
 Practiced using many different kinds of maps.
 Learned to listen attentively and with results.
 Created a desire to do some traveling in our own State this summer.

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UNIT VI

HOW HAS GEOGRAPHY BROUGHT THE WORLD TOGETHER?

Overview by Teacher

Objectives

1. To understand the persistent struggle of all peoples to control and use their physical environment
2. To appreciate the influence of the profit motive, its values and abuses
3. To realize the results from ideas, inventions, and the impacts of one geographic area upon another
4. To understand the common concerns of all peoples regardless of time, place, race, or geography
5. To examine the need for world organization
6. Other objectives developed through pupil-teacher planning

Activities (Individual, committee, and class projects and reports)

1. Report on the meaning of the "industrial revolution"
2. Talk to class by an elderly citizen on conditions when most towns made or grew what they needed
3. Talk by an industrialist on the need for new markets to create more jobs and increase profits
4. Report on the "open door" policy in China, "spheres of influence," and the Boxer rebellion
5. Talks by former students who have been in Japan or China

6. Report on the rise of Japan as an Asiatic power
7. Review and report on the book *With Clive in India*
8. Map preparation on the exploration and sectioning of Africa by the European governments
9. Panel discussion on:
 - a. The evils of imperialism
 - b. The benefits of imperialism
 - c. The extent of imperialism today and present trends
 - d. The need for world organization
10. Other activities developed through pupil-teacher planning

Content

1. How does geography lead to industrialism, and trade lead to imperialism?
 - a. Need for raw materials and markets
 - b. Investment of the profits of industry and commerce
2. How did Europe and America reawaken Asia?
 - a. Opening the door of ancient China
 - b. How Japan became a modern nation
 - c. How India entered the modern world
 - d. Development of southeast Asia
3. How was the Dark Continent opened?
 - a. Europeans explore Africa
 - b. Missionaries and traders bring new ideas and ways of living to Africa

Culminating Activities

Student displays, dramatizations, reports, etc.

Evaluation

See Chapter IV

NOTES

UNIT VII

HOW DOES THE GEOGRAPHY OF PENNSYLVANIA PROVIDE OPPORTUNITIES FOR EMPLOYMENT?*Overview by Teacher**Objectives*

1. To understand the job and service opportunities that are afforded young people by Pennsylvania's diversified geography
2. To encourage pupils to develop a life-career motive
3. To enable pupils to analyze their own abilities
4. To develop an appreciation of the economic system that makes Pennsylvania's production possible
5. To understand the dignity of all types of work and the cooperative nature of all human effort
6. Other objectives developed by pupil-teacher planning

Activities (Individual, committee, and class projects and reports)

1. *Construction of graphs and charts*
 - a. Production of iron and steel in Pennsylvania, past and present
 - b. Coal production in Pennsylvania
 - c. Manufacturing in Pennsylvania, rank of leading industries, and growth of manufacturing over a period of years
 - d. Pennsylvania's production of oil and other mineral and metal resources
 - e. Pictorial graph showing population and employment growth in Pennsylvania. Compare this production with that of any other entire country
2. *Reports on trips*

Have students who have traveled in Pennsylvania report on where they went, how long it took, what they saw, etc.
3. *Outside speakers*

Arrange for talks by or interviews with men and women of various occupations. Class committees may be organized for making such arrangements
4. *Committee reports*

Different types of occupations: Engineering, mechanical, agricultural, geographic in Pennsylvania
5. *Committee report*

Individual aptitudes needed for various types of occupations, the meaning of an intelligence quotient, value of interest and hard work

6. *Talk to class*
By school counselor or principal on geographic occupations
7. *Visits*
Geographic areas to observe various kinds of workers on the job
8. Other activities developed by pupil-teacher planning.

Content

1. *Agriculture and farm life*
 - a. Many types of farming
 - b. Better ways of living and working on the farm
2. *Pennsylvania as a leading industrial state*
 - a. The raw materials for industry
 - b. Production of a variety of goods
 - c. Manufacturing centers of our State
3. *Service occupations which improve our living*
 - a. Transportation and communication
 - b. Commerce and trade
 - c. Professional and service occupations and opportunities

Culminating Activities

Reports on pupil projects, exhibits, etc.

Evaluation: See Chapter IV.

SECTION 5

GRADE ELEVEN

HOW CAN WE MORE FULLY APPRECIATE OUR AMERICAN NEIGHBORS?

Scope

The word *neighbor* in geographic education today must be taken and accepted in its broadest meaning. Our neighbors, then, are the peoples who live not only in our immediate environment but those who help us to satisfy our daily wants, whether they live close to us or not. Likewise, a new emphasis is stressed in understanding the word *community* which, considered in its fullest meaning, includes those areas which provide work opportunities for us to make a livelihood and which assist us in securing commodities which we need for earning a living.

If we consider these words, *neighbor* and *community*, in their truest sense, we are immediately confronted with problems which we need to solve to understand just who our neighbors are and in what kind of communities they live, work, and play. Some of these questions are: (1) *How can we appreciate our neighbors?* (2) *How can we have respect for them?* (3) *How can we serve them and how can they help us satisfy our wants?* (4) *What kind of people are they?* (5) *In what ways do they resemble us and how do they differ from us?* (6) *In what kind of lands do they live and how do these lands influence their lives?* (7) *What have they done to be self-sufficient?* (8) *What are they doing about their social problems?* (9) *What kind of culture have they and how is it revealed in a study of their music, art, and literature?* All are timely questions since the two Americas, North and South, have a great need to develop closer and deeper understandings of one another.

A study of well-planned experiences, on a unit basis, geared to the maturity levels of the pupils who are to work with them, and centered around arriving at desirable outcomes—work, health, citizenship, home life, thrift, science, beauty, leisure, and communication—will undoubtedly give us a newer appreciation of our neighbors who live south of the Rio Grande and north to the pole; and it will create in us a desire to develop further the mutual understanding between the continents in the Western world.

Suggested Unit Titles

1. What geographic attitudes should be developed which will lead to world understanding, cooperation, and peace?
2. How are the transportation and population patterns of the United States and its neighbors a result of the industrial development of these areas?
3. What natural factors of the United States have influenced the agricultural regions which provide work opportunities for the people to make a livelihood for themselves and to help their neighbors?
4. What human and natural factors have caused an uneven distribution of the people of North America?
5. What are the physical, economic, and cultural bonds existing between the United States and Canada which have made the people of these countries very friendly neighbors?
6. How have the natural resources and the work constantly going on within a community made the people interdependent?
7. How have the people of Canada worked with their natural resources to make a living for themselves and for other people of the world?
8. How can the Alaskan Highway, a section of the Pan-American Highway, contribute to hemispheric solidarity?
9. How have the people of Alaska used their environment to serve their needs and how have they modified their environment to contribute further to their welfare?
10. What natural conditions in the Territory of Alaska have been developed which would warrant statehood?
11. Why has the increase in transportation by air made Greenland an important airfield and weather station?
12. Why has the white man always been interested in his polar neighbors?
13. How can the true meaning of Pan-Americanism be realized by the people of North and South America?
14. What are some of the economic and cultural difficulties which must be solved before the people of the Americas can become understanding and mutually admiring neighbors?
15. What are some of the physical, cultural, social, and economic obstacles which must be met if a good neighbor policy is to be fully realized?
16. What physical, economic, educational, social conditions have affected the growth of transportation in the Latin-American countries?
17. What physical conditions have helped and delayed the building of the Pan-American Highway in the Latin-American countries?
18. Why do the Caribbean countries and Brazil carry on a greater portion of their trade with the United States than do the other South American countries?

19. What natural conditions in Argentina and the United States have enabled them to produce similar commodities and have caused them to be strong competitors in world trade?
20. Why do our neighbors in the countries north of us have so small a population?
21. What resources of Canada contribute to my standard of living?
22. Why does Canada occupy a strategic position in the world?
23. What are the distributional problems of transportation in Canada?
24. What are the environmental difficulties in developing Alaska?
25. Why is Argentina a great food-exporting country?
26. What are the problems of developing the country of Brazil?
27. How are the climates of South America different from those of North America?
28. How does the location of the natural regions in South America compare with the location of natural regions in North America?
29. How does the population pattern of South America compare with that of North America?
30. Why do many of the countries of Central America practice commercial agriculture?
31. Why is northeastern United States an area of great manufacturing?
32. Why is the Corn Belt of the United States the richest farming region of the world?
33. What are the problems faced by the farmer in producing cotton in the United States?
34. What, where, and how can the resources of Latin America contribute to my well-being?
35. What are the major problems of the Great Plains of the United States and Canada?
36. Why is the mining industry important in the Western Hemisphere?

Illustrative Units

These units may be readily adapted for local use.

- | | | |
|------|-------|---|
| UNIT | I: | Why are the Americas interdependent? |
| UNIT | II: | How can we become better acquainted with our neighbors south of the border? |
| UNIT | III: | What do our Central American neighbors contribute to our way of life? |
| UNIT | IV: | How can we become better acquainted with Argentina? |
| UNIT | V: | What are the bonds between the United States and Canada? |
| UNIT | VI: | Coffee production and consumption |
| UNIT | VII: | Elementary map and aerial photograph reading |
| UNIT | VIII: | Elementary navigation |

UNIT I

WHY ARE THE AMERICAS INTERDEPENDENT?*Problem*

To learn how the economic, social, political, and cultural relationships of the people of the Western Hemisphere can be improved through the study of the mining industry of Latin America

Objectives

- A. To learn how man's activities in the Americas are related to his natural environment
- B. To understand how strategic materials of the Americas contribute to the economic well-being of all of the Western Hemisphere
- C. To develop better understanding of racial problems and methods of improving interracial relations
- D. To develop an appreciation of the traditions, customs, languages, and educational backgrounds of the people of Latin America
- E. To realize the part that the Americas must play in the world family of nations
- F. To acquire skills in the use of maps, globes, charts, statistics, graphs, pictures, and reference books

Approach to Study

- A. In order to gain an understanding of mining in other regions the students felt they should know more about the mining industries in their own local area. They made a survey of the mining activities in their local county. As a result of this survey their interest in mining was greatly stimulated.
- B. A motion picture from the United States Bureau of Mines, "Tin from Bolivia," was shown to the class.
- C. Statistics and information on sources of strategic materials of Latin America were collected and posted on the bulletin board.
- D. Letters were written to steamship companies, travel bureaus, consulates, embassies, government agencies, and Pan-American organizations for literature on life in the Americas.
- E. A filmstrip on "Mining in South America" was shown.

*Development of the Problem***Work of Student Committees**

The class was divided into committees each having a chairman. The committees collected, evaluated, and assembled information from various sources—libraries, textbooks, newspapers, magazines, steamship companies, travel bureaus, consulates and embassies of

the Pan-American organizations. Reports were made on the major mining industries of the Latin-American nations. A list of topics with the major points emphasized follows:

Metallic and nonmetallic minerals

Gold, silver, copper, tin, bauxite, nitrates, asphalt, manganese, and others

- | | |
|--|---|
| (1) Location | (8) Methods of mining |
| (2) Distribution by countries | (9) Methods employed in conserving minerals |
| (3) Distribution by geographic regions | (10) Methods of transportation |
| (4) Potential deposits | (11) Amount exported and imported |
| (5) Actual production | (12) Economic significance |
| (6) Extent of development | |
| (7) Exhaustibility | |

Activities

- A. Read stories, poems, and plays (see Bibliography)
- B. Had a "Community Sing" using the most popular Latin-American songs.
- C. Played some recordings of popular Latin-American songs.
- D. Used the sound recording (33 $\frac{1}{2}$ rpm) "Resources of Brazil and Argentina" from the Pennsylvania State College Film Library.
- E. Made a display of all literature, posters, pictures, maps, and other materials collected.
- F. Prepared tables showing the major minerals and how the various countries rank in production.
- G. Committee members presented slides along with a narration which they prepared.
- H. Kept functional notebooks on Latin America.

Related Activities

A. *Language*

Writing letters requesting material on the unit

Progress reports to the class

Translating Spanish and Portuguese expressions into English

Using the dictionary to find definitions of difficult words

B. *Science*

Study of high altitudes and their effects on the human body

Use of chemicals in extracting metals from ores

Smelting process—types of fuels used

Geological formation of metals, asphalt, diamonds, petroleum

Use of the Geiger counter, seismographs, and other modern devices for locating mineral deposits
The uses of diamonds in industry
Cutting of diamonds. The story of the Vargas diamond
Construction of homes in warm areas—thick walls and high ceilings

C. *Spelling and handwriting*

Demonstrating ability through letter writing
Vocabulary—meaning and application of new terms
Using English-Spanish, Spanish-English dictionary

D. *Mathematics*

Reading and interpreting maps—elevation, scale of miles, depth of oceans
Computing distances, using scale of miles
Interpreting and constructing graphs—bar graphs, circle graphs, line graphs
Problems concerning time zones
Measuring distances, using degrees of latitude and longitude

E. *Music*

Recognizing such rhythms as tango, samba, rumba
Assembling the names of some of the popular Latin-American songs:

- | | |
|------------------|------------------|
| 1. Malaguena | 5. La Paloma |
| 2. Rancho Grande | 6. La Golondrina |
| 3. Cielito Lindo | 7. Amapola |
| 4. Estrellita | 8. La Cucaracha |

Reading about the Mexican composer Carlos Chavez, the Brazilian singer Bidu Sayao, and the Brazilian composer Heitor Villa-Lobos
Studying about instruments that are typically Latin American

F. *Literature*

Reading stories, poems, and plays by Latin-American as well as other writers (see Bibliography)

G. *Art*

Painting murals of life in Latin America
Charcoal drawing and water color painting
Collecting reproductions of Latin-American art both ancient and modern. (The *National Geographic Magazine* is a good source.)
Spanish architecture—homes and churches

Evaluation

- A. The ultimate test of the teaching of this unit is to be found in the attitudes, understandings, and skills of the students
1. Observation by the teacher will reveal the attitudes that the students have developed toward each other as well as toward the people about whom they have studied

2. Paper and pencil tests as well as oral tests will indicate the understandings they have gained through the work undertaken
 3. Ability in finding, assembling, and interpreting data, as well as the proper use of maps, charts, graphs, and other visual aids will be a real test of skills developed
- B. Some functional information that should be gained from the unit
1. Importance of friendly relations with Latin America
 2. How strategic minerals contribute to friendly relations and also to controversy with Latin America
 3. How minerals influence the lives of the people who produce them as well as the consumers
 4. Contributions of these minerals to our daily lives
 5. Uses of these minerals during peacetime contrasted with their uses during war
 6. Contributions of aviation to increased production of mineral resources
 7. Knowledge of different methods of mining
 8. How foreign capital aids in developing natural resources
 9. Value of United States military bases in Latin America. Illustration
 10. Strategic value of the Panama Canal
 11. Influence of natural environment on the mining industry
- C. The real test of the unit is whether or not the work has contributed toward the making of better citizens in our community, our nation, and the world

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UNIT II

**HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR
NEIGHBORS SOUTH OF THE BORDER?***Objectives*

- A. To extend the students' experiences and to help them gain information that will enable them to think intelligently and without prejudice about our neighbors south of the border
- B. To help the students gain a better understanding of the Mexican people:
 - 1. Through knowing their home relations and activities
 - 2. Through knowing their business and governmental relationships and activities
 - 3. Through knowing them in their leisure time and cultural pursuits
 - 4. Through knowing their various natural regions
- C. To develop a neighborly feeling toward the people south of the border
- D. To help the students recognize the mutual dependence of both countries

Orientation

- A. Lecture, illustrated by colored slides, was given
- B. A collection of pictures from the *National Geographic Magazine* was displayed on the bulletin board
- C. The class visited the museum to see exhibits of Mexican life and art
- D. Objects of interest from Mexico were brought into the classroom by teacher and pupils and were displayed on a table

Procedure

- A. Committee groups
The class divided into committee groups. Each committee found the answers to questions set up by the students concerning:
 - 1. Climate and surface features
 - 2. Agricultural products of Mexico
 - 3. Mineral products
 - 4. Native birds and animals
 - 5. Native vegetation
 - 6. People—homes, clothing, education, government
 - 7. Chief occupations
 - 8. Methods of transportation
 - 9. Exports and imports
 - 10. Important cities

Activities

- A. Planned an itinerary for an imaginary trip to Mexico
- B. Charted route, listed things to see, estimated cost
- C. Oral reports by the committee chairmen
- D. Booklets
- E. Essays written by different committees and read to class
- F. Experiments with foods
- G. Prepared food exhibits
- H. Motion pictures
- I. Current news reports
- J. Making of posters

Related Activities in Other Subject Matter Fields

A. ENGLISH

Reports—oral or written
 Stories dealing with Mexico
 Round-table discussions on group activities

Quiz programs
 Reports on related subjects
 Vocabulary building

B. SCIENCE

Refrigeration and its relation to shipping of foods
 Fermentation and food preparation

New development in air and sea transportation

C. MATHEMATICS

Computing distances
 Study of latitude and longitude
 Geometric designs on ancient temples

Ancient calendars
 Pyramids of ancient tribes
 Map construction and map-reading

D. MODERN LANGUAGES

First of the native languages
 Spanish
 Learn meaning of Spanish words

The influence of the languages on geographic relationship
 Names of cities, rivers, mountains, food, and clothing

E. ART

Architecture—native and foreign influence
 Feather painting
 Pottery

Frescoes
 Tapestries
 Paintings

F. MUSIC

Singing Mexican songs

Listening to recordings of Mexican music

*Evaluation**Pupil Growth Observed by Teacher*

1. Developed interest
2. Mastered skills

3. Gained knowledge
4. Read more widely on subject
5. Better understood the difference between fact and propaganda

Teacher's Activities

1. Evaluated pupil's individual *growth; attitudes and behaviors*
2. Tested facts learned
3. Promoted ideas of friendliness, kindly attitude, and tolerance toward the people below the Rio Grande
4. Appreciated what others have to offer to aid us in our daily lives
5. Youth learned the need to think carefully, express their thought clearly, and read with understanding

Group

1. Strength and weaknesses of committee work
2. General roundup of undeveloped ideas
3. To understand cultural and natural resources of other regions and people so as to understand his own community better
4. To recognize the interdependence of the Americas

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NOTES



STUDENT LEADERSHIP IN MAP STUDY

UNIT III

WHAT DO OUR CENTRAL AMERICAN NEIGHBORS CONTRIBUTE TO OUR WAY OF LIFE?

Orientation

- A. Physical, rainfall, and product maps of the Central American republics were displayed.
- B. Pictures showing cultural and natural scenes of the countries were displayed on the bulletin board.
- C. Booklets and pamphlets from the United Fruit Company, explaining the new agricultural development throughout Central America, were placed on the reading table.
- D. A United World film, "Cross-Section of Central America," was shown to the class.
- E. The class divided into committees to carry on studies of the six republics of Central America: Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama.

Objectives

- A. To develop an understanding of the people and their activities and the natural conditions that direct these activities
- B. To develop an appreciation of the interdependence of people
- C. To acquaint the student with the common geographic problems that exist within these relatively similar areas
- D. To stimulate investigation of how the people in the other Americas live
- E. To promote increased international sympathy and understanding

Content

The students and teacher set up the following outline to be followed by all committees in carrying out their investigation of the tropical mountainous Central American countries.

- A. Surface features
- B. Climatic conditions
- C. Natural resources
- D. Concentration of population
- E. Agricultural development
 - 1. Coffee production
 - 2. Banana plantations
 - 3. Other crops
- F. Transportation and communication
- G. Trade relations with the United States and other countries
- H. Cities and seaports

Activities

- A. Activities correlated with English:
 - 1. Committee reports were given on the following topics:
 - a. Banana development in the Caribbean and on the Pacific Coast
 - b. Agricultural experimentation
 - 2. Vocabulary lists were kept by all committees and studies were made of such words as *agrarian*, *lighterage*, *quetzal*, *kapok*, *causeway*, *abaca*, and others.
 - 3. Letters were written to the United Fruit Company and to the Pan American Union for booklets, pamphlets, and other materials.
- B. Activities correlated with Art:
 - 1. A bulletin board display on coffee was made by one committee.
 - 2. A large booklet showing pictures (*National Geographic*) of the Mayan Indians was made by another committee.
 - 3. Highways and railways were drawn on a large outline map placed on the blackboard.

4. Desk outline maps were given to all class members with directions to locate specific items and to keep for future use.
5. Flags and coats of arms were made by the art students.
6. Posters showing outstanding cultural and natural features were made.

C. Activities correlated with Music:

1. Records of folk songs were played.
2. National anthems of the Central American republics were played (Arranged for piano by Luis Guzman).

D. Activities correlated with Spanish class:

1. Translated magazine articles
2. Learned to pronounce Spanish words

E. Activities correlated with Mathematics:

1. Made circle and bar graphs showing exports and imports for each republic
2. Made rainfall charts and graphs

Evaluation

Written summaries made by all members of the class

Oral and written tests

Graphs and picture tests

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Further Problems

The above unit was followed by a unit on the tropical West Indies. The class divided into committees to study the following:

A. Cuba

B. Haiti and the Dominican Republic

C. Puerto Rico

D. Jamaica

UNIT IV

HOW CAN WE BECOME BETTER ACQUAINTED WITH ARGENTINA?*Orientation*

- A. A moving picture on life in Argentina was shown to the class.
- B. Handicraft of the country was displayed.
- C. Murals showing the life of the country were displayed.
- D. Pictures showing the cultural and natural factors of the environment were attractively arranged on the bulletin board.
- E. Maps and graphs which compared the population and products of Argentina with those of the United States and other sections of the world were displayed.
- F. Magazines, books, and pamphlets were arranged on the reference table.
- G. Records were brought in from the music department.

Objectives

- A. To promote the spirit of cooperation with the people of Argentina in trying to solve our mutual problems.
- B. To develop a sympathetic appreciation of the people of Argentina as they work to produce the necessities of life.
- C. To develop an appreciation of the struggle of the people for political and economic development. A recognition of geography as one of several factors that contribute to the development of people and nations.
- D. To understand how the occupations and industries of the people are related to and are partly an outgrowth of the natural setting.
- E. To understand how the problems of travel and transportation are intimately related to the natural environmental factors.

Content

The class divided into committees to make a study of the following topics:

The people of Argentina

Surface and climate conditions

A land of cattle and wheat

Resources of farms, forests, and ranches

Natural regions of Argentina:

- 1. The temperate and fairly well watered Pampas:
 - a. Climate of the Pampas
 - b. Native vegetation and its utilization
 - c. Agriculture—wheat and corn production
 - d. Cattle industry

2. The mountains and the semi-arid and arid plains of Argentina:
 - a. Tucuman—a garden spot
 - b. Mendoza and grape culture
3. The semi-arid lands of Patagonia:
 - a. Regional characteristics
 - b. Resources
 - c. Settlements
 - d. Ranching
4. The Gran Chaco
 - a. Forest lands
 - b. Cotton cultivation
5. Mesopotamia:
 - a. Climatic conditions
 - b. Crops raised
 - c. Pastoral development

Argentina's industrial program

Trade relations of Argentina

Ports and cities of Argentina

Activities

A. Activities correlated with English:

1. Essays on the following topics
 - a. Aviation in Argentina
 - b. Buenos Aires, Center of the Country's Health
 - c. Why I Would Like to Visit Argentina
2. Articles for the school paper
3. Letters for pamphlets and materials
4. Letters to express appreciation for favors received

B. Activities correlated with Art:

1. Made a map showing the natural regions of Argentina
2. Made murals showing people engaged in leading activities
3. Made physical, rainfall, population, and products maps
4. Made posters and booklets depicting natural and cultural environment factors of Argentina
5. Pictorial map and flag of Argentina were made by one committee.

C. Activities correlated with Mathematics:

1. Made graphs showing the crop acreage, imports, and exports. Comparisons were made with those of the United States.
2. Made climatic charts comparing the climate of the following cities
 - a. Rosario, Argentina, with that of Augusta, Maine
 - b. Buenos Aires with that of Atlanta, Georgia
3. Measured great circle route distances between the leading cities of Argentina and those of the United States and other nations of the world

D. Activities correlated with Music:

1. Records were played
2. Folk songs were sung

E. Activities correlated with Spanish:

1. Learned to pronounce and translate Spanish terms—developed a pronouncing list
2. Read and translated articles on Argentina

F. Culminating activities

1. An assembly program was presented to the senior class.
2. An exhibit of materials collected and prepared by the students was displayed in the geography classroom. All classes were invited to visit the exhibit.
3. A radio broadcast was given over the local radio station.

Evaluation

A. Geographical relationships were worked out by individuals and groups.

B. The following questions were discussed and answered:

1. How is Argentina's progress related to the climate, to the natural resources, and to the character of the people?
2. What natural factors make Argentina an excellent country for raising wheat, corn, and cattle?
3. What type of manufacturing has been most highly developed in the Pampas Region? Why?
4. What are the major industries of the five natural regions?
5. Why is Argentina a leader in South American trade?
6. In what respect are Argentina and the United States competitors in the world market? Explain.

C. Written and oral tests were given.

D. Written summaries were made for the five natural regions.

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Following the above unit on Argentina the class studied Brazil and Chile. Argentina, Brazil, and Chile are often called the A B C Countries of South America. The following outline served as a guide:

Brazil

- A. The land and peoples of Brazil
- B. The natural regions of Brazil
 - 1. The sparsely populated rainy forest of Amazonia
 - a. Climatic relationships
 - b. Vegetation and animal life
 - c. Natural resources
 - d. Native inhabitants
 - e. Agricultural and forest products
 - f. Regional development and opportunities
 - 2. Northeast Brazil
 - a. Regional characteristics
 - b. Agricultural products
 - c. Vegetation—the carnauba palm
 - d. Trade centers
 - 3. Central Brazil—the heart of Brazil
 - a. Natural landscape and regional characteristics
 - b. Coffee production
 - c. Other products
 - d. Mineral industry
 - e. Transportation and communication
 - f. Coastal cities
 - 4. South Brazil
 - a. Surface and climatic conditions
 - b. People and leading activities
 - c. Forest resources
 - d. Urban centers
 - 5. Interior Brazil—a frontier
 - a. Physical landscape
 - b. Natural resources and activities
 - c. Development of transportation

- C. Industrial development
- D. Foreign commerce of Brazil
- E. The future of Brazil

Chile

- A. The land and peoples of Chile
- B. Natural regions of Chile
 - 1. North Chile—the valuable desert
 - a. Surface and climate
 - b. Population problems of the desert
 - c. Nitrate production and other minerals
 - 2. Central Chile
 - a. Surface and climate
 - b. Concentration of people and leading activities
 - c. Crops produced
 - e. Ports and cities
 - 3. South Chile
 - a. Natural landscape and regional characteristics
 - b. The inhabitants and their activities
 - c. Forests and pasture lands
- C. The rise of urban industries
- D. Foreign commerce

Other Countries of South America

In a year's course in high school geography the following groups of countries may be studied together because of their similarities.

- A. Caribbean South America
 - 1. Colombia
 - 2. Venezuela and Guiana
- B. The Andean Countries
 - 1. Ecuador—mountainous country on the equator
 - 2. Peru—a country of deserts and mountains
 - 3. Bolivia—a mining land of the Andes

UNIT V

**WHAT ARE THE BONDS BETWEEN THE UNITED STATES
AND CANADA?****I. *Orientation***

- A. Wall maps, outline maps, folders from railroad and steamship offices, road maps, and posters were placed about the room where they would attract the pupils' attention and stimulate a desire for further research.
- B. Pictures of Canada with questions attached were displayed on the bulletin board.
- C. Supplementary books from the school and public libraries were arranged on the reading table.
- D. Students who had visited Canada told us many interesting things about Canada.
- E. Groups were formed and topics for study were outlined by the class. Each group was given a specific assignment.
- F. Newspaper accounts of trips to Canada were reported by different class members.

II. *Objectives*

- A. To develop the ability to recognize the interdependence of the people of our community with other regions of the world
- B. To lead the pupils to know that in making use of the natural resources of their country the people of Canada have developed many types of work which are similar to human activities in the northern section of our country
- C. To understand the climatic and physical characteristics of Canada
- D. To build within the pupils a feeling of neighborliness and fellowship by acquainting them with Canada and how she has met the problems of living
- E. To provide for increased growth in tolerant understanding of these problems
- F. To develop a feeling of fellowship toward our neighbors and a realization of the evergrowing interdependence between the peoples of the Western Hemisphere

III. *Content*

Individuals and groups reported their findings on one or more of the following regions of Canada:

- A. *Regions of Canada*
 - 1. The Wheat Belt
 - 2. The Rocky Mountain Region
 - 3. Provinces of Ontario and Quebec

4. Labrador and Newfoundland
5. Canadian Forests
6. The Yukon Region
7. British Columbia
8. Maritime Provinces

B. *Outline for the study of the regions*

1. Geographic setting—Compare with the United States
 - a. Physical features
 - b. Natural resources
 - c. Development
 - d. Factors influencing growth and development
2. Distribution and character of population
 - a. Government
 - b. Education
3. Occupations
4. Industries
5. Tourist trade
6. Waterways—their use and development
7. Cities—growth and importance
8. Travel, transportation, and communication
9. Trade with other regions, with other countries, and with the United States
10. Contributions of each region to Canada's progress and to the progress of the world
11. Relation to the United States

IV. *Activities*

- A. Final reports were made to the class about each region. Reports were illustrated by using maps and pictures
- B. Kept geographical notebooks containing such materials as maps, charts, summaries, vocabulary lists, pictures, and current events
- C. Made graphs showing comparative areas and population of the United States and Canada
- D. Secured and showed films on Canada
- E. Displayed the work of individuals and committees

V. *Activities Related to Other Subjects*

A. *English*

1. Read stories and poems related to the unit
2. Gave original book reports
3. Wrote original poems and stories
4. Wrote business letters for information and materials on Canada
5. Planned and presented a simple play
6. Held panel discussions

B. *Mathematics*

1. Compared Canada and the United States in size—length, width, and area
2. Measured great circle route distances between cities
3. Computed mileage for imaginary auto trips; cost of gasoline per mile, etc.
4. Made different kinds of graphs
5. Computed time and cost of vacation trip

C. *Art*

1. Designed and made folios for pictures, current events, and different materials collected
2. Made posters
3. Mounted pictures artistically for the bulletin board
4. Made pictorial maps of Canada

D. *Science*

1. Natural vegetation
2. Climate and weather
3. Water bodies—properties of
4. Electricity

VI. *Evaluation*

- A. Formal examinations prepared by teacher to check facts learned
- B. Group discussion of strength and weakness of committee work; committee leaders; learning experiences; development of interests, skills, abilities, achievement of goals
- C. Discussion of need for drill and formal instruction
- D. Discussion and summary of what had been done
- E. Evaluation of study skills
- F. Rating scales and check lists worked out by students

VII. *Bibliography*

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UNIT VI

COFFEE PRODUCTION AND CONSUMPTION

Broadcast: Round Table Discussion on Coffee. Presented as a part of the Youth Program on Station WCOJ, Coatesville, Pa.

Data for this broadcast were selected, organized, and critically analyzed by the students and teacher. To clinch their learning achievements, they used the evaluation section in Unit IV of *Our Industrial World Workbook*, by Anna P. James.¹

SUGGESTED OPENING FOR PROGRAM

Sound Effect: Establish restaurant scene by clattering several dishes and clinking some silverware.

Sound Effect: Fade.

Waitress: Care to see a menu, sir?

Customer: No need to bother, thanks. Just a cup of coffee.

Waitress: (Back farther from microphone.) Cream?

Customer: A little, please.

Sound Effect: Clink a spoon in a teacup several times—then place cup and saucer on table near microphone.

Waitress: Here you are, sir. One cup of coffee with a little cream.

Customer: Say, I see by the sign over there that a cup of coffee's now ten cents. How come?

Waitress: Well, you know that the price of coffee's gone up everywhere.

Customer: I wonder why.

Waitress: Don't ask me, mister. I only work here.

There is a five-second pause and then an announcer's voice breaks in.

Announcer: Yes, the price of coffee has gone up and many people do wonder *why*—without really knowing. The program to which you are now listening hopes to supply some of the answers to some of the questions that perhaps you have been thinking about.

1st Speaker:

We have been asked why we selected "Coffee" for this unit of study in geography. We did it primarily because we are discussing the tropics, and coffee is a typical and important product of tropical highlands. In the second place, we knew it was an opportune time to learn about coffee because nearly everybody is asking why the price of coffee has skyrocketed at least twenty cents a pound in the last few months. It has not yet reached the price paid by William Penn—\$4.68 per pound—but the price today is very high, and in many places a cup now costs ten cents.

We have learned a great deal about coffee, but you will probably be most interested in what we have learned about the reasons for the rise in price.

¹ John C. Winston Company.

Who would like to start this discussion? How about you, Alleace? What have we learned?

2nd Speaker:

Well, that's a big order, Bob. You said yourself we learned a great deal.

To begin with, the United States buys about 90 per cent of its coffee from the five largest producing countries: Brazil, Colombia, and Venezuela in South America and Guatemala and El Salvador in Central America. Over half of this usually comes from Brazil alone, and the remainder from Colombia, Guatemala, El Salvador, and Venezuela in that order; and some coffee comes from Mexico.

Now, what has happened in these countries to make coffee scarce? We heard about a drought in Brazil, perhaps not too serious, but enough to start a rumor that the coffee crop would be short this next harvest. A real drought, you know, would be dreadful for coffee trees. In Guatemala, there were floods; and that would be bad, too.

Coffee trees, you remember, are very particular about their growing conditions. Perhaps we should review for you some of the requirements for growing coffee trees successfully.

Suppose you do this for us, Mary Jo. You did it so well in class.

3rd Speaker:

Thank you, Alleace.

Coffee trees do have definite requirements in topography or type of surface, in soil, in climatic conditions, such as amount and distribution of rainfall and temperature throughout the year, also in care and attention.

First, let's consider topography. The trees should be on sloping hill-sides of highlands in the tropics. Some of the Brazilian plantations are on slopes that are 1,000 to 6,000 feet in elevation. They need to be on the sloping land because they need air drainage and water drainage. Air drainage allows the colder air at night to flow down into the valley so that the trees on the slopes will not be harmed if the temperature at the bottom of the slope should fall to 32°. Frost, of course, would be fatal.

Water drainage is necessary, too, because coffee cannot have water standing on the roots. Coffee requires a heavy rainfall but the rain must drain away; and that is another reason we find the trees on the hillsides.

Now, what about soil?

Coffee trees are very fussy about soil. They do best in red volcanic soil, rich in potash and iron. Naturally fertilizer must be used as the plant food in the soil gets scarce. The heavy rain causes leaching; that is, the plant food is washed out of the soil. Heavy rain causes erosion, too; the soil itself is washed away. Care must be taken that leaching and erosion do not cause damage.

What about the climate? Mike, you're good at telling about climate and labor.

4th Speaker:

The climate must be tropical; this means an average temperature all year from about 60° to 80°—with no frost in any month. The seasonal rain, as we have said, should be heavy, from 60 to 100 inches. In addition to this wet season of several months when this heavy rain comes, there should be a dry season. In this dry season, the coffee berries are picked and the coffee beans are dried in the sun.

The trees, and sometimes there are thousands of them on a plantation, require much care and attention from the time the trees are planted until the green beans are in the bags on the dock at Santos or Rio de Janeiro.

The laborers are of many nationalities. In the pictures we noted Italians, Portuguese, Negroes, Germans, Japanese, and Chinese, and Mestizos, a mixed breed of Indian and white.

Brazil is a wonderful coffee country because it has all these many definite requirements, including conditions needed to produce coffee. In the southeastern part of Brazil, in and around the state of Sao Paulo, it is just about ideal for coffee trees. No wonder somebody wrote a song which says, "There's an awful lot of coffee in Brazil."

Now let's come back to the story of the drought this fall. So far as we can learn, it was not very serious.

Remember that report our teacher brought in about the drought?

5th Speaker:

Yes, I remember it.

It seems that last summer several weeks of unbroken sunshine prolonged their dry season, and somebody started a rumor that *if* the drought continued it would spoil the coffee crop. Then in September—their season for blossoms—spring, you know, in the Southern Hemisphere—there were cold winds which blew off some of the blossoms.

That was all that was needed for a New York financial paper to publish the story that the drought had ruined the crop. The market speculators began to buy it up, wholesale dealers and roasters bought it in. Finally came the prediction in the paper, "Coffee will be \$1.00 a pound," and you know what Mrs. America did. She began buying extra amounts—more than she needed. This is just plain hoarding and it has helped make the price go up, to the extent of taking perhaps 90 million dollars from the pockets of American buyers.

They didn't wait to learn that in October in Brazil the rains came as they always have. So most likely there will be a fine crop. No, people in the United States did not know their geography of coffee. Rain—and it was really pouring by late October in Brazil—could not drown the panic or scare in our country. So consumers in the United States continued buying it up, and storing it.

I think this hoarding of coffee has had much to do with the rise in price. There are some other reasons why the price has exploded upwards.

6th Speaker:

I know another reason. There is really a greater demand for coffee than ever before. For a long time it has been the most popular of the three hot beverages—coffee, tea, and cocoa. Do you know how much people in the United States use per capita? About 13 pounds per person in a year. That's a lot of coffee per person.

Why is there a greater demand now than ever before?

First, our population has increased. It was 132 million in the last census, and the prediction is for 150 million in the 1950 census. Population all over the world has increased.

Second, during the war when sugar was short and soft drinks were scarce, people began drinking more coffee than ever, and have kept on drinking it.

Third, our men in the armed services helped spread the use of coffee to faraway places in the world.

Today with the great increase in the demand for coffee you would think the planters in Brazil would plant more and more trees, but they have not. There are fewer trees in Brazil now than there were in the 1930's.

What is the reason for this?

Vivian, will you tell us? You brought in the report about this shortage of trees in Brazil.

7th Speaker:

Yes, I did make the report.

The Brazilian plantation owners reduced their number of trees because they were not making a profit.

In the 1930's, during the depression, they delivered coffee in New York at 9 or 10 cents a pound. After paying the cost of insurance and freight, many of them found they were operating at a loss. They had a surplus of coffee. They said, "Why stay in business when we cannot make a profit?"

Sometimes during those years when they had a surplus of coffee, the Brazilian Government had to buy the overstock and burn it after keeping it for three or four years. Sometimes they dumped it into the ocean.

As a result of this loss, planters went into other lines of work, raising cotton or some other product; the large plantations were broken up; workers drifted away from the plantations into other occupations.

Today it is said the number of coffee trees in Brazil has dropped from *three* billion trees to something over *two* billion—and this at a time when the demand is greater than ever before.

Perhaps these planters may want to come back now to raising coffee because of the price rise; but even if they do, it will take at least five or six years for new trees to begin producing.

This drop in the number of trees in Brazil, it seems to me, would have much to do with the rise in price when there is such a good market

for coffee. In the 1930's Brazil used to produce over 22 million bags a year. A bag weighs about 132 lbs.

This year a crop of only 14 million bags is expected. Someone has said a new song should be written with the theme "There's an awful *lack* of coffee in Brazil."

Maybe this is not the chief cause, but it surely must have something to do with the price of coffee.

Let's sum up all the reasons we have found.

Will you do this, Bob?

1st. Speaker:

The reasons we have discussed are as follows:

First. There was the drought in Brazil, but we learned it was not too serious; and the floods in Guatemala may have made a shortage there.

Second. When the United States' housewives became panicky and started increased buying, that surely made the shortage worse.

Third. Speculators in the market got mixed up in it, but we as 8th graders know little about this. It may have been important.

Fourth. The shortage of trees in Brazil at the very time there was an increased demand for coffee made matters worse.

All of these conditions, and possibly more, helped to cause the rise in price.

But I'd like to say this: we think people should not be alarmed about the shortage. If people knew their geography they should know there are very large areas of tropical highlands in Brazil and other countries which are perfectly suited for coffee trees. So the shortage must be only temporary. There can be plenty of coffee.

So—

Know geography, learn the truth;

That's good advice for adults and youth.

Don't hoard coffee, it does not pay;

There's enough for all for many a day.

Yes, plenty of coffee every breakfast cup to fill;

There's a vast amount of coffee in Brazil.

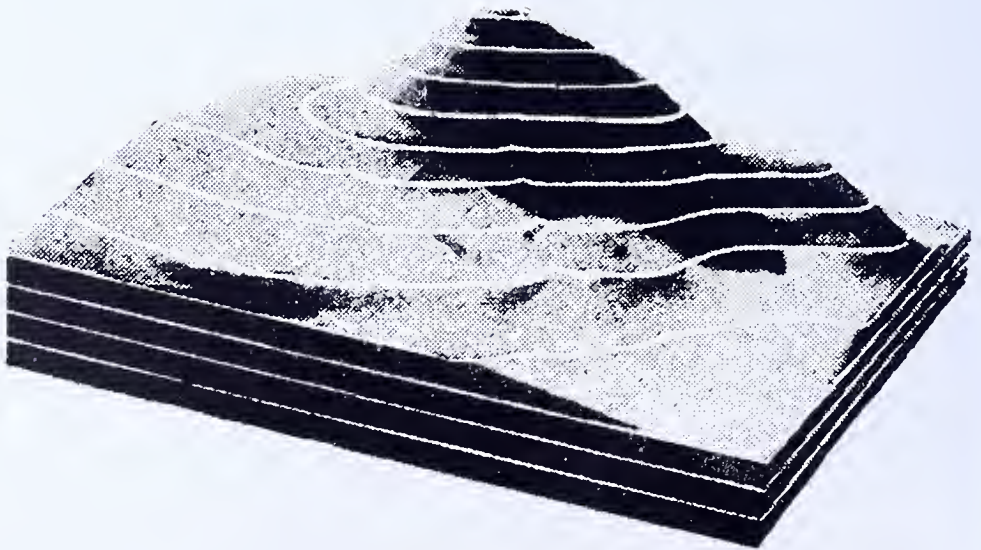
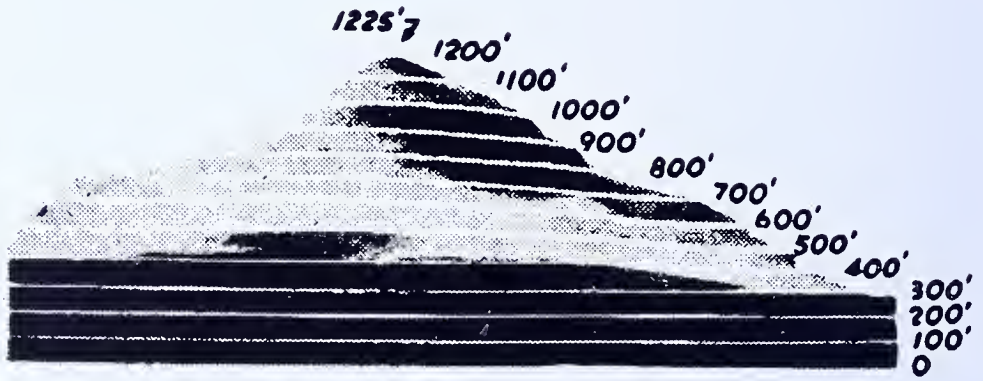
UNIT VII

ELEMENTARY MAP AND AERIAL PHOTOGRAPH READING

(Unit is suitable also for Grade 12.)

- I. *Overview by teacher and planning with pupils*
 - A. General discussion on maps and their use
 - B. Examination of sample maps and aerial photographs
 - C. Viewing of films on map reading (See VI, Bibliography)
- II. *Objectives developed by pupil-teacher conference*
 - A. To be able to travel on foot or in a vehicle without getting lost
 - B. To understand geographical features and gain familiarity with their names
 - C. To be able to orient a map with the ground
 - D. To find out how to locate points by coordinates
 - E. To develop the ability to measure distance and direction
 - F. To understand how elevation is shown and measured
- III. *Development of a work plan and organization of work groups*

These may be rotated to provide experiences for all.
- IV. *Learning activities: class, committee, and individual work with reports*
 - A. Signs and symbols
 1. Significance of the legend—name of map, graphic scale, representative fraction, contour interval
 2. Significance of colors used on a ground map
 - a. Works of man
 - b. Vegetation
 - c. Elevation
 - d. Water
 3. Colors used to designate roads of various types
 4. Geographical features and their names: ridge, saddle, draw, etc.
 - B. Location of points
 1. Rule for reading coordinates (read right up)
 2. Significance of grid lines (printed or drawn by pupil)
 3. Conventional distances between grid lines on maps of different scales
 4. Preparation and use of a grid card (dividing grid distances into tenths) and practice in its use and in writing coordinates—(10.7-6.5)
 5. Report on the zero lines, Greenwich meridian and the equator, and on parallels of latitude and longitude



CONTOUR MAPS

C. Measurement of distances

1. Significance of the representative fraction and the meaning of the scale
2. Use of a ruler, a strip of paper and a pin, the dividers, and a map measurer in measuring distances
3. Use of mileage figures and charts on road maps

D. Measurement of direction

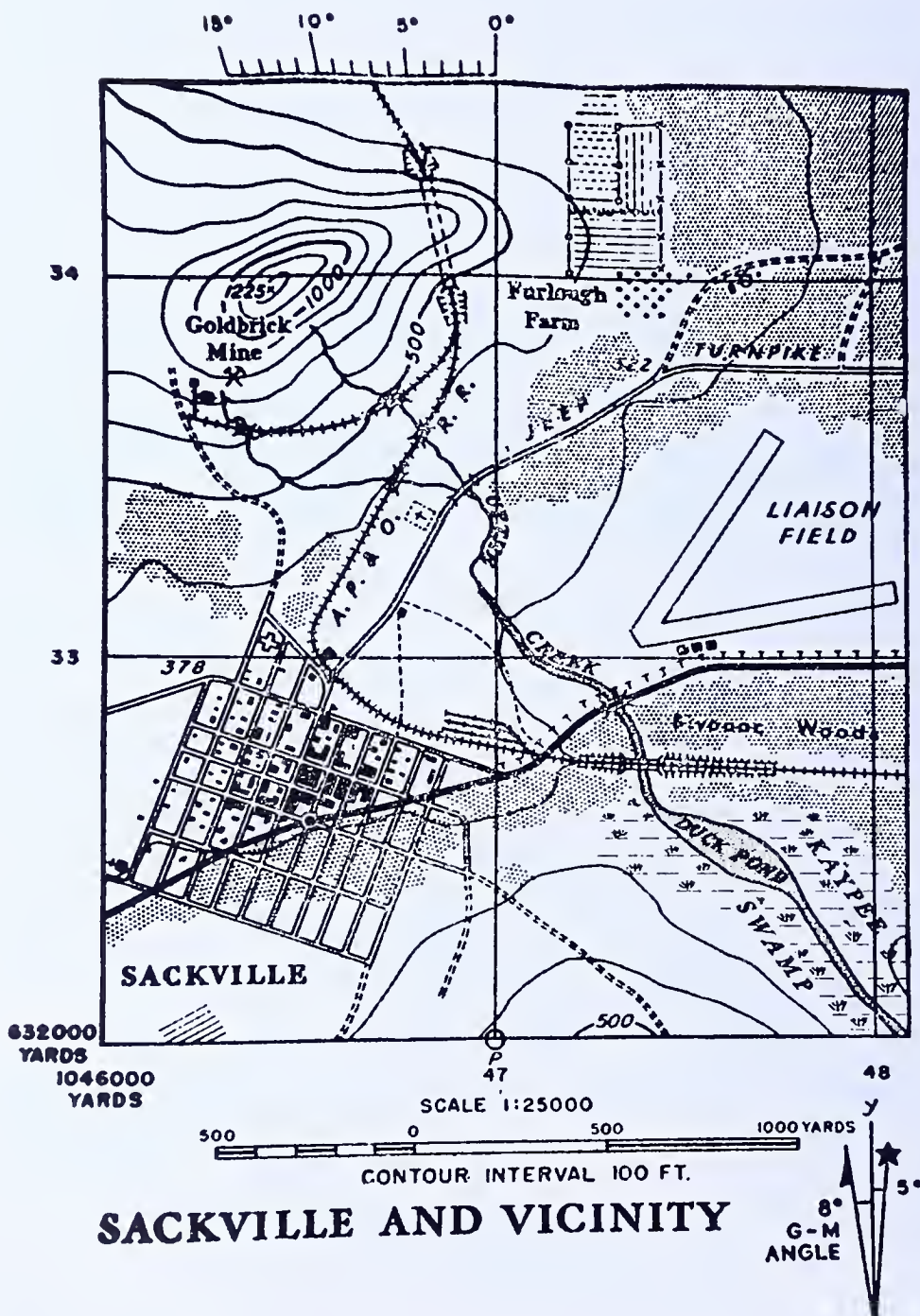
1. Use of a compass and its characteristics
2. Meaning of the terms magnetic north, true north, azimuth, declination, North Star, back azimuth
3. Use of a protractor and grids in measuring azimuths on a map
4. Corrections for declination. Use of LARD formula (Left, add; Right, deduct)
5. Outdoor practice in the use of the compass
6. Practice in orienting maps by compass and by observation
7. Finding north by using a watch

E. Measurement of elevation

1. Study of the use of contour lines in measuring elevation
2. Significance of contour lines that are close together or far apart or form "V's" when crossing streams
3. Meaning of the expressions "contour interval" and "vertical interval"
4. Use of sea level in measuring elevation
5. Practice in estimating visibility from point to point on a map and in constructing a profile
6. Practice in accentuating terrain features by drawing in stream lines in blue and ridge lines in brown or some other color

F. Reading aerial photographs

1. Position of shadows in reading
2. Factors which help to distinguish objects (size, shape, texture, shadow)
3. Advantages of an aerial photograph over a topographical map
4. Significance and meaning of grid lines on an aerial photograph
5. Practice in orienting an aerial photograph
6. Significance of numbers (such as 12:28 : 1330) printed on the margin
7. Determination of the scale of an aerial photograph



G. Map-making class activity

1. Construction of stride scale
2. Construction of a slope board
3. Making a plane table survey on surrounding terrain
4. Practice in plotting contours, using slope board

V. Culminating activities

1. Demonstration of prepared maps, stride scales, etc.
2. Committee reports and demonstrations
3. Class discussion on achievement of objectives and effectiveness of work
4. Use of self-appraisal check list
5. Review of films
6. Achievement test and drill where need is shown

VI. Bibliography

- * FM 21-25,¹ Elementary Map and Aerial Photograph Reading
- * FM 21-26, Advanced Map and Aerial Photograph Reading
- * FM 21-30, Conventional Signs, Military Symbols and Abbreviations
- * FM 21-35, Sketching
- * FM 30-21, Aerial Photography, Military Application
- † TF D21-2071,² Basic Map Reading, Part I—Conventional Signs
- † TF D21-2072, Basic Map Reading, Part II—Elevation, Distance, and Grid
- † TF D21-2073, Basic Map Reading, Part III—Direction, Orientation, and Location without compass
- † TF D21-2074, Basic Map Reading, Part IV—Direction, Orientation, and Location without compass
- † TF D21-2075, Basic Map Reading, Part V—Photos and Photomaps
- † FS 2-22,³ The Use of the Lensatic Compass

PERFORMANCE TEST

FOR USE WITH INDIVIDUAL PUPILS

NOTE: The teacher should have available: a ground map, ruler, map measurer or strip of paper with a pin, compass and protractor. Forms may be mimeographed for use with individual pupils, or for pupil self-appraisal.

1. *Meaning of Items on the Legend* Check: Yes ? No

- a. What is the representative fraction?
- b. How many inches on the ground is represented by an inch on the map?
- c. What is the contour interval?
- d. What is the magnetic declination?
- e. What is the grid declination?

* Secure through local recruiting officer, military post, or from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

† Secure through local recruiting officer or military post.

¹ FM: Field Manual.

² TF: Training Film.

³ FS: Filmstrip.

NOTE: Much of the work can be done on an ordinary road map. Simple ground maps may be secured from the Military Service Publishing Company, Harrisburg, Pa.

2. *Meaning of Topographical Symbols*

(Point to each on a map.)

Check: Yes ? No

- What does this represent? (Improved road)
- What does this represent? (Trail)
- What does this represent? (Contour line)
- What does this represent? (Bridge)
- What do these represent? (Buildings)

3. *Location of Points*

(Points marked on map, find coordinates)

Check: Yes ? No

- V
- W
- X
- Y
- Z

4. *Measurement of Distance*

Require each pupil to use correctly: a ruler, edge of paper, or map measurer and apply it to the graphic scale.

Check: Yes ? No

- What is the straight line distance from X to Y?
- What is the straight line distance from A to B?
- What is the road distance from X to Y?
- What is the road distance from A to B?
- If the distance between two points on this map is six inches, how many miles is it on the ground?

5. *Measurement of Direction*

Check: Yes ? No

- What is the grid azimuth from X to Y? (Pupil reads azimuth with protractor.)
- If you were at X on the ground and wanted to go on a straight line to Y, what compass reading would you follow? (Pupil changes grid azimuth in a. to a magnetic azimuth.)
- If you were at Y and wanted to go to X, what azimuth would you follow? (Pupil figures back azimuth—add or subtract 180° .)

- d. If you read an azimuth of 40° between two points on the ground with a compass, what azimuth would you plot on this map with a protractor? (Pupil changes magnetic azimuth to a grid azimuth.)
- e. Orient this map, using this compass. (Pupil orients the map on the floor, placing compass needle over magnetic arrow on the map and turning the map.)

6. *Elevations*

Check: Yes ? No

(Points marked on map)

Give the elevation of the following points.

- a. V
b. W
c. X
d. Y
e. Z

7. *Use of Air Photo*

Check: Yes ? No

- a. Show how to hold this photo to study it. (Shadows should be toward the pupil.)
- b. Explain the meaning of the printing on the photo. (Location, date, hour, scale—or focal length and elevation, direction arrow, and file number. All may not be present.)
- c. How is the scale of an air photo determined? (The ratio between the focal length of the camera, in inches, to the elevation above the ground in inches.)
- d. Identify the following objects: (Point)
- (1) House
 - (2) Road
 - (3) Stream
 - (4) Hill, etc.
- e. If the scale were not marked on the photo and you were on the ground, how could you determine it?

Answer: By pacing the distance between two visible points and calculating the scale.

UNIT VIII

ELEMENTARY NAVIGATION

(Unit is suitable also for Grade 12.)

I. *Objectives*

- A. Central Objectives—Understanding of the background material for navigation
- B. Contributory Objectives
 - 1. Knowledge of the prime meridian, the equator, and the earth's poles
 - 2. Understanding of latitude
 - 3. Understanding of longitude
 - 4. Understanding of the time zones
 - 5. Understanding of map distortions and shortest routes
- C. Indirect Objectives
 - 1. Interest in the study of navigation
 - 2. Increased vocabulary of navigational terms
 - 3. Interest in geography

II. *Presentation and Exploratory Questions*

As we recall from our history, Magellan's ship was the first to circumnavigate the globe. This feat was accomplished without charts or any of the improved navigational equipment that we have today. Magellan's only guide was a magnetic compass, and his trip was a sort of hit-or-miss venture. Today, however, one can go to any section of the world by either regularly scheduled airplane or ocean liner trips, and he will have constant knowledge of his position on the earth's surface throughout the flight or cruise. Navigation is developing more and more into an electronic operation, but every navigator must know the fundamental divisions of the earth's surface and how to locate positions in terms of these divisions.

- 1. Which city is farther south—Rome or Philadelphia?
- 2. When it is noon in London what time is it in New York City?
- 3. Which is the farther west—Chile or Florida?

III. *Learning Activities*

- A. For the first contributory objective

The earth rotates about an axis, an imaginary line through its center. The ends of this axis are called the poles, North Pole and South Pole. An imaginary circle around the earth, halfway between the poles, is called the equator. An imaginary circle through the poles and through Greenwich, England, is called the prime meridian.

Locate the poles, equator, and prime meridian on a mounted globe.

B. For the second contributory objective

The latitude of a place is its distance north or south of the equator, measured in degrees. The circles of latitude drawn on the globe every fifteen degrees north and south from the equator are known as parallels of latitude. Since they are parallel, any two of them are everywhere equidistant from each other. The equator is the line of zero latitude. Points on parallels to the north of the equator are designated as north latitude while those to the south are called south latitude. The degrees of latitude are subdivided into minutes and seconds for accurate navigation—each minute of latitude equals one nautical mile in distance.

Locate and label correctly the latitude of Rome, Philadelphia, Rio de Janeiro, and Capetown.

C. For the third contributory objective

The longitude of a place is its distance east or west of the prime meridian, measured in degrees. It is measured from Greenwich eastward 180 degrees and westward 180 degrees. Lines of longitude are called meridians. The 180th meridian is known as the international date line.

Locate the international date line on the globe and name a group of islands through which it passes.

If you know the latitude and longitude of any position you can readily locate it on a chart or a globe. It is the navigator's job to know his position at all times.

Locate and label a group of islands at approximately 162 degrees west longitude and 22 degrees north latitude.

D. For the fourth contributory objective

When it is midnight in Philadelphia it is 5 A.M. of the following day in London. The earth is divided into time zones, each being 15 degrees of longitude, measured seven and one-half degrees on either side of the meridians divisible by 15. Each time zone is equivalent to one hour. The zones are labeled plus one, plus two, etc., westward from the Greenwich zone, and minus one, minus two, etc., eastward from the Greenwich zone. Since Philadelphia is in the plus five zone (near the 75th meridian) one adds five hours to Philadelphia time to get London time, London being in the Greenwich zone. The plus and minus twelve zones meet at the international date line and are actually only half zones. When one crosses the 180th meridian going westward he skips twenty-four hours or one day on his

calendar since he passes from the plus twelve zone to the minus twelve zone. Here is the only place one can completely lose a day of his life (going westward) and live the same day twice (going eastward). The international date line is the original point of date change, and then the date change moves progressively westward at one hour intervals for each zone.

The navigator must have a thorough knowledge of time zones and changes because his computations are all based on Greenwich time.

Locate Chicago, Honolulu, Shanghai, and Cairo on the globe and report their time zones.

E. For the fifth contributory objective

The earth is spherical in shape, and so the only way to chart its surface without distortion is to make a globe. You probably know from experience that you can't take a half section of a hollow rubber ball and flatten it.

For practical purposes, however, it is necessary to represent the earth's surface on charts. The most common projection of the earth is the Mercator chart. This is the type reproduced on most wall charts and in books and also used by the surface navigator. Most people believe that a straight line connecting two points on such a chart is the shortest route. This is incorrect and can be proved so by measuring, with a piece of string, on a globe the distance between Los Angeles and London, for example. The string measurement on the globe is the shortest route. Note six or eight check points along the path of the string and then plot these on a Mercator chart. It will be obvious that they do not lie in a straight line. The polar projection chart is used for air routes. On this chart one can pick out shortest (or "great circle") routes more easily. Such charts can reproduce one hemisphere without much distortion, i. e., the hemisphere which contains the pole used as center of the chart. Compare Mercator and polar projection charts with a globe.

This concludes the introduction to a navigation course. It is hoped that this unit has aroused the interest of the students to the point where they are looking forward to a more complete study of the course, and furthermore that they have a more critical outlook toward strategic geographical locations.

SECTION 6

GRADE TWELVE**HOW CAN WE CONTRIBUTE TO INTERNATIONAL PEACE?****Scope**

Twelfth grade geography is global in content. The particular world pattern developed will depend upon the interests of the student group, the background of the student, and the needs of the local community. If an economic pattern was developed in grade eleven and retained by the pupils, this work should not be repeated. The concepts realized should be utilized in developing a second world pattern which will build understandings, habits, and attitudes basic to the major theme: "How Does the Study of Geography Contribute to International Peace?"

The development of a problem must be kept on the twelfth grade level. It can be of sufficient depth to give the student an understanding of his world and provide him with a "frame of reference"—"a mental map of the world." The content should emphasize the geographic foundation of a nation or area and the effects of the environment upon the development of the people, their industries and trade. *To be effective, it must be related to the student's own living and experience and must provide meaningful learning activities which will promote desirable changes in the way he thinks, feels, and acts.*

For most students this World Geography course will be the last one they will ever take; so it is important that this culminating course should pull together the total geographic experiences of the student, fix his understanding of geographic principles, and add others besides.

Sequence

When planning the over-all work for the twelfth year, the teacher should consider the essential needs of all youth and the specific needs of each individual in his class. Many unit titles have been suggested. From the list the teacher may select those which will enable the students and teacher to reach the desired objectives and which meet local community needs. Unit titles which are an outgrowth of pupil-teacher planning and fit the needs of the pupils are most worth while. Teachers and pupils are encouraged to formulate original units.

Suggested Unit Titles

1. How can we become better acquainted with the scientific facts concerning the nature of the world?
2. How do the weather and climate of the earth affect us in every aspect of our daily living?



WE CAN BUILD A NEW WORLD
IF PEOPLE UNDERSTAND EACH OTHER
BUY TODAY

40 NATIONS
COOPERATE
1 BILLION PEOPLE
THROUGH
UNESCO

WE CAN BUILD A NEW WORLD
IF PEOPLE UNDERSTAND EACH OTHER
BUY TODAY

YOU CAN HELP THE UNICORNS FOR

YOU CAN HELP THE UNICORNS FOR

YOU CAN HELP THE UNICORNS FOR

3. How do factors of the natural environment help to explain the distribution of people within my community and the world?
4. How are the occupations and industries within our community and in other communities of the world related to and partly an outgrowth of the natural environment?
5. How are the food, clothing, and shelter of the various areas of the world partly dependent upon and modified by our physical environment?
6. How are the health and the physical well-being of various peoples of the world influenced by the surroundings in which they live?
7. How are the sports and recreational activities within our community and other communities partly an outgrowth of an adjustment to the natural environment?
8. How can we help to promote a better understanding and appreciation of other peoples of our community, country, and world, and the land in which they live?
9. How does the geographical environment affect the way man lives, works, feels, and thinks in the various nations of the world?
10. Why is the uneven distribution of the earth's resources a vital problem of all peoples?
11. What is our personal responsibility for wise present and future use of human and natural resources?
12. How does the distribution of the natural resources of the earth influence the interdependence of people?
13. How are the problems of travel and transportation related to natural environmental factors?
14. What part do natural and cultural environments play in determining political boundaries?
15. What natural and cultural factors have caused some areas of the world to become "problem" areas?
16. Why should the American youth concern himself with the geographic bases of national and international problems?
17. How does the new concept of space and time influence our relations with other nations?
18. How can we help to promote greater sympathy and understanding of peoples? How are their political and economic problems tied up with conditions in various parts of the world as well as with the natural environment in our own region?
19. How can we better understand the whole world in terms of population pattern, work pattern, political pattern, and the natural environmental factors which help to explain these distributions?
20. How do our nation's location and natural resources affect its economy and its position in world affairs?

ILLUSTRATIVE UNITS

These units may be readily adapted for local use.

- UNIT I: How can we become better acquainted with our earth?
- UNIT II: How do weather and climate affect our living?
- UNIT III: How can we help to promote a better understanding and appreciation of other peoples?
- UNIT IV: What factors influence the international activities of our nation?
- UNIT V: What factors determine the quality of our community?
- UNIT VI: How can we as individuals and as a nation improve human and international relations?

UNIT I

HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR EARTH? ¹

(For a Study of *Global Geography*)

Introduction

Any unit of study must necessarily be very flexible. The personnel of the class, the interests of the group, and the time allotted to the study are factors that determine the extent of the study. The following outline may be too inclusive; if so, pupils and teacher should select the parts that are of most interest and value to them. Any units in geography study should follow a logical sequence. The unit "The Earth" should precede other units in the study of World Geography, and an understanding of the first part of the unit should be necessary to the development of the parts to follow.

A well-developed study unit in geography should draw from all fields of learning. It not only develops oral and written expression, but it should also be closely related to art, music, science, social studies, arithmetic, shop work, and health.

The method of introducing the unit will vary with each class and teacher. Each teacher should plan possible ways of introducing the study and getting pupils interested in it. Each pupil should feel that the study is going to help him with understandings and skills that will aid him in developing a well-rounded life.

General Objectives

1. To understand how our daily lives are related to the global earth
2. To develop the ability to do logical thinking in terms of relationships of people to their environment
3. To develop skills and techniques in obtaining desired information from various sources
4. To develop a social, cooperative attitude of group planning and working together

¹ Adapted from units of work from various senior high schools, twelfth grade, and from the State Teachers College at Clarion.

<i>Pupil Objectives</i>	<i>Contents</i>	<i>Student Activities</i>
Every part of a unit of study should have some specific objectives that will serve the needs of the pupil	<p>The content of the outline is stated in question or problem form. The questions are only suggestive ones. The questions and problems should come from the pupils, and the teacher and pupils should attempt to arrange questions in logical sequence.</p> <p>What is our earth's solar system?</p> <p>Name the different planets. How are they all related to the sun?</p> <p>What are the shape and the size of the earth? Spheroid; diameter—polar, equatorial; circumference—meridional, equatorial</p> <p>The surface of the earth is land, air, and water. How are our lives directly related to each?</p> <p>What is gravity? How does your grocery shopping depend upon gravity?</p> <p>How is a baseball game directly related to gravity?</p> <p>What is magnetism?</p> <p>What practical use do we make of magnetism?</p>	<p>Activities should be planned and executed by the pupils with limited guidance from the teacher. Pupils may work as individuals, groups, or the class as a whole. All important findings should be reported or demonstrated to the entire class.</p> <p>Pupils should make use of other fields of study—science, biology, arithmetic, art, etc.—and their findings should be reported to the class.</p> <p>Report from science unit on astronomy.</p> <p>On an outline map of the world name the continents, largest islands, oceans, largest gulfs, and bays.</p> <p>Collect substances of different specific gravity and demonstrate their weight in class.</p> <p>Demonstrate the use of the compass.</p>

HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR EARTH?—Continued

Pupil Objectives

Contents

Student Activities

Why will the compass in most cases not point directly toward the North Pole?

Obtain a sectional aviation chart to show agonic and isogonic lines and how compass deviations are corrected.

What people have greatest need for a compass? Why?

How are corrections of compass deviations made?

To understand how places can be located on the earth's surface, on globes, and on maps

What are the two fixed places on our spherical earth from which measurements might be made? (North and South Poles)

Obtain for the class the table of circular measure and show by drawing how it can be used.

To appreciate the practical value of being able to locate places on the earth, globes, and maps

Map makers decided it would be more convenient to draw a line on globes and maps half the distance between the north and south poles and measure from it.

On a rotating slatted globe draw the equator and parallels and then find the latitude of various places.

What is this line called?

(The equator is a real line on globes and maps but not on the earth.)

Pupils will enjoy many games and exercises in locating places by latitude and longitude on maps and globes.

What lines on maps and globes designate the distance north or south of the equator?

How can you tell if a place is north or south latitude if the equator is not shown on the map?

Pupils should learn to express latitude or longitude completely; not only the degrees but also the direction.

What is the greatest latitude that any places on the earth can have? Where are these places?

What is low latitude? middle latitude? high latitude?

One degree of latitude is equal to how many miles?

Problem to be worked in mathematics class.

<i>Pupil Objectives</i>	<i>Contents</i>	<i>Student Activities</i>
To develop an understanding of great circle routes and their importance in air navigation	<p>What is the approximate air flight distance from New Orleans to Chicago? Miami to Toronto, Canada?</p> <p>What is a great circle?</p> <p>Why do air navigators fly the great circle routes?</p> <p>Why have certain areas in high northern latitude become strategically important?</p> <p>What is a nautical mile?</p> <p>What is its length in the United States?</p> <p>Who uses the nautical mile?</p> <p>(Latitude and longitude should not be introduced in the same class period. It is suggested that latitude be studied first and reviewed in the next class period before longitude is studied. This will avoid much confusion.)</p> <p>There are points fixed by nature on the earth from which to measure east and west. A line is drawn on globes and maps from the North Pole to the South Pole, passing through Greenwich, a suburb of London. All measurements east and west are made from this line.</p> <p>What do we call this line on globes and maps? How is it numbered on maps?</p> <p>What do we call the measurements east and west?</p>	<p>Many other problems should be formulated by the pupils.</p> <p>Show by use of a globe and measuring tape that the arc of a great circle is the shortest distance between two places.</p> <p>Draw on a slated globe great circle routes between various important cities.</p> <p>Problem in mathematics.</p> <p>Draw on slated globe the prime meridian and other meridians and number each.</p>

HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR EARTH?—Continued

<i>Pupil Objectives</i>	<i>Contents</i>	<i>Student Activities</i>
	What lines are used to designate east and west?	Locate by latitude and longitude many places on the globe and maps.
	How can you tell if a place is east or west longitude if the prime meridian is not on the map?	
	What is the greatest longitude any place can have?	Exact latitude and longitude may be found on any large-scale map, such as a sectional aeronautic chart.
	What is the exact latitude and longitude of your home town?	
	What are the two motions of the earth?	
	What causes us to have day and night?	Show by the use of a rotating globe and a lantern or flashlight why the sun appears to rise in an easterly direction and set in the west and why the sun will rise earlier at all places east of your home and later at all places west of your home.
	What is meant by sun time (solar time)? What instrument is used in determining the correct sun time?	
	Why is sun time not practical in our modern age?	Shop boys may be able to make a sun dial for the south window of the classroom.
	What system of time has taken the place of sun time?	
	What meridians are used for the standard time belts? Why?	
To develop an understanding of the apparent motion of the sun		
To develop an understanding of the basis for our present calendar and our standard time system		

<i>Pupil Objectives</i>	<i>Contents</i>	<i>Student Activities</i>
	What are the standard time belts of the United States and what is the meridian for each time belt?	Students in mathematics class should be able to find the difference in minutes between sun time and standard time of their home town.
	Why are the boundaries of the time belts of the United States not straight lines?	
	What is daylight-saving time? Why do we have it? What class of people usually do not favor daylight-saving time? Why?	Pupils may get the opinions of people of various occupations as to the desirability of daylight-saving time.
	What is the international date line? How is it related to the standard time of the world? Where is it located? Why there?	Pupils should make many standard time problems and exercises in finding the day and time of various places such as Rio de Janeiro, London, Moscow, and Hawaii. Exercise in arithmetic.
	What is a year?	
	What is a leap year? Why must we have leap years?	
	Why can you look at the sun without dark glasses just after sunrise or just before sunset but not during the middle of the day?	By a drawing show two reasons why we get more heat from a direct ray of the sun than from a slant ray.
To develop an understanding of why we have temperature seasons	During what month is the noonday sun nearest over our heads? What month is it lowest in the southern sky? During which month do we get the most heat from the sun? The least heat?	Use lantern or flashlight to represent the sun and revolve the globe around the sun to show the various angles at which the sun's rays strike the earth and the varying length of day and night at different latitudes.
To develop an appreciation of how our lives are related to unequal length of day and night and temperature seasons		

HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR EARTH?—Continued

Pupil Objectives

Contents

Student Activities

When are days and nights of equal length?

Make drawings to show the relative position of the earth and sun at the time of the equinoxes and solstices. These drawings should show length of day and night and the angle of the sun's rays. Keep record of the length of the noonday shadow of some tall object such as a building or flag pole.

What are these dates called?

When do we have the longest daylight period?

The longest night? What are these dates called?

Some people talk about equinoctial storms. Can you discover any reasons why we should have stormy weather at the time of the equinox?

Check weather and meteorologic records to show that there are no such things as equinoctial storms.

How does the length of day and night vary with latitude?

Where would you go to see the midnight sun in June?

Collect pictures of the midnight sun and of the life of the Eskimos.

Why do expeditions to Antarctica start in December?

How are the lives of people, animals, and plants related to unequal length of day and night?

On which side of Main Street that extends east and west would you prefer to have your place of business in summer? In winter? Why?

Interview business houses to find which side of the street is preferred.

HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR EARTH?—Continued

<i>Pupil Objectives</i>	<i>Contents</i>	<i>Student Activities</i>
	<p>You have discovered by use of the globe, lantern, and drawings two reasons why we have temperature seasons. Briefly stated: Seasons are caused by the inclination of the earth's axis ($23\frac{1}{2}$ degrees from perpendicular to the plane of the ecliptic) together with the rotation and revolution of the earth. (Pupils should never be expected to memorize such a statement if they do not understand it.)</p> <p>What is the latitude of the Equator? Tropic of Cancer? Tropic of Capricorn? Arctic and Antarctic Circles? Why are they so located?</p> <p>Do you think the Tropics and Circles would be good boundaries for temperature zones? Why?</p> <p>How have plants and animals adapted themselves to temperature seasons?</p> <p>How are your lives directly related to temperature seasons?</p> <p>What are some of the physiological reactions of people to temperature seasons?</p> <p>What are tides? What causes them?</p> <p>What causes the variation of tides at different places on the earth?</p> <p>How are the lives of people related to tides?</p>	<p>Write a list of plant adaptations to temperature seasons.</p> <p>Write a list of animal adaptations to temperature seasons.</p> <p>List all the activities in your home community that are directly related to temperature seasons.</p> <p>Find the height of tides in various large seaports of the world.</p> <p>Get a newspaper report of the schedule of tides in some seaport city.</p>
To develop an understanding of the nature and cause of tides		
To understand how the lives of people are related to tides		

HOW CAN WE BECOME BETTER ACQUAINTED WITH OUR EARTH?—Continued

Pupil Objectives

To develop an appreciation of the value of maps as a source of information

To develop the habit of using maps to gain information

To understand the difficulties in making accurate projections and to understand the defects of each

To develop an appreciation of maps as representations of real things and landscapes

To develop the ability to interpret physical or relief maps

Contents

What is a map? What is a cartographer?

Why is it difficult to represent any part of the earth on a map?

What is meant by a map projection?

Accuracy in what four things is desirable on a map projection? Can they all be attained in mapping a large area? The following map projections are in common use: Mercator, conic, homolographic, Goode's interrupted homolosine, aximuthal polar.

What are the characteristics of each that will help you to identify them? What are the defects of each? What are the special advantages of each?

What is meant by scale of maps? What are the three most common ways that scale is expressed on maps? What is meant by a large-scale map? A small-scale map? When would you have need for each?

How can elevations of land, such as a steep hill, be shown on maps? What are contour lines? What is contour interval?

What are the different things shown on your maps in your textbooks, references, and atlases? (Maps are made to show specific things and almost all geographic data can be represented on maps.)

Student Activities

Show by use of half of a hollow rubber ball that a curved surface cannot be spread on a flat surface.

Show how a grid of parallels and meridians can be projected on a cylinder or cone.

Examine map projections in your books, atlas, and wall maps. What projections are used most?

Make three or four drawings of your classroom, each on a different scale, and express the scale in three different ways.

Make an irregular mound of sand or modeling clay and draw it in your notebook. Color the drawing to represent different elevations and make a key on the drawing to show contour interval.

<i>Pupil Objectives</i>	<i>Contents</i>	<i>Student Activities</i>
To develop an ability to interpret all maps	Why do you use maps more in the study of geography than you do in most other courses? (A map is not geography, but the ability to interpret maps is of vital importance in your geographic thinking.)	Write a list of all the different things you can find represented on maps.

NOTES

LEARNING AIDS

SOUND FILMS

The Solar Family

The Earth in Motion

Earth and its Seasons

Global Concepts of Maps

} Encyclopaedia Britannica Films, Inc.

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Globes

Wall and desk maps

Lantern slide projector or flashlight

Motion picture projector

MATERIALS

Some of the knowledge introduced at the beginning of this unit may have been included in a student's work while in junior high school. However, relearning such principles at the senior high school level as a basis for solving problems of a different nature is both desirable and necessary.

UNIT II

HOW DO WEATHER AND CLIMATE AFFECT OUR LIVING? ¹**I. *Orientation***

The following preparations for initiating the unit were made by the students and teacher.

- A. A collection of pictures that showed the work of man in the different climatic belts of the world was displayed on the bulletin board.
- B. Weather maps were displayed on the bulletin board.
- C. A committee was appointed to keep a record of weather observations while studying the unit. They were directed to use weather symbols used by the United States Weather Bureau on weather maps, to note relationships of the effect of wind direction upon temperature, the type of clouds preceding rain, changes of temperature, and changes of pressure during the day and from day to day.
- D. A committee was appointed to look up climatic data for our country.
- E. A world climatic map and reading materials on climate and weather were provided.
- F. Several class periods were used for class discussion concerning the influence of the climate on living conditions in places or areas in which students lived or visited.
- G. A glossary of terms which an aviator needs to use in observing weather was listed on the blackboard.

II. *Objectives*

- A. To understand how man's food, clothing, and shelter are partly dependent upon the climatic conditions of his environment
- B. To understand how man's occupations and industries are related to and partly an outgrowth of his natural setting
- C. To understand how man's health and physical well-being are closely related to his adjustment to climatic conditions
- D. To understand how man's sports and recreational activities are partly an outgrowth of an adjustment to his natural environment, particularly climate, plant and animal life
- E. To understand how man's problems of travel and transportation are intimately related to the weather and climate of the earth

¹ Adapted from units taught in the various senior high schools of our State.

III. *Contents*

A. The Atmosphere

1. Composition of the atmosphere—gases and other matter
2. Extent of the atmosphere
3. Parts of the atmosphere and the characteristics
 - a. Troposphere—tropopause
 - b. Stratosphere—stratopause
 - c. Ionosphere—ionopause
4. Temperature of the atmosphere
 - a. Measurement of
 - (1) Thermometer (various scales)
 - (2) Thermograph
 - b. Variability
 - c. Isotherms
 - d. Effect of rise in altitude—lapse rate
5. Pressure of the atmosphere—a manifestation of weight
 - a. Measuring air pressure
 - (1) Barometer—mercurial, aneroid
 - (2) Barograph
 - (3) Altimeter
 - b. Relations of temperature to air pressure
 - c. Isobars
6. Moisture of the atmosphere
 - a. Measurement
 - b. Variations in amount
 - c. Capacity for water vapor—saturation—humidity—relative humidity—absolute humidity
 - d. Fogs
 - (1) Formation
 - (2) Kinds — radiation — advection — monsoon — sea — interior—frontal
 - e. Clouds
 - (1) High Clouds—cirrus, cirrocumulus, cirrostratus; height and composition
 - (2) Middle Clouds—altocumulus, altostratus; height and composition
 - (3) Low Clouds—stratocumulus, stratus, nimbostratus; height and composition
 - (4) Clouds and vertical development—cumulus, cumulo-nimbus; height and composition

B. Role of Sun in Producing Weather

1. Unequal insulation
 - a. Movement of earth around sun
 - b. Inclination of earth axis
2. Transfer of heat by radiation, conduction, convection

- C. Wind System of the World
 - 1. Effect of the earth's rotation—speed of rotation at equator, speed of rotation at poles
 - 2. Circulation of air in the Northern Hemisphere—in the Southern Hemisphere
 - 3. Velocity
 - a. Methods of measuring
 - b. Beaufort scale
 - 4. Effect of unequal heating of oceans and continents on wind circulation
 - a. Monsoon circulation
 - b. Land and sea breezes
 - c. Mountain and valley breezes
 - 5. Location and climates of the world wind belts
- D. Ocean Currents and Drifts—one of the controls of climate
 - 1. Causes—prevailing winds, rotation of earth, shape of continents
 - 2. Warm and cold currents
 - a. Low latitudes
 - b. Middle and higher latitudes
 - 3. Climatic significance
- E. Air Pressure and its Effect on Weather
 - 1. Meaning of high and low air pressure
 - 2. "Highs" and "lows," or cyclones and anticyclones
 - a. Movement of air
 - b. Path of these storms
 - c. Characteristics of
 - d. Frequency and speed
 - 3. Weather map
- F. Weather Observations and Records
 - 1. Collection of data
 - 2. Preparation of maps, charts, and diagrams
 - 3. Predicting
 - 4. Surface observations and upper air observations
- G. Significant Human Aspects of Climate and Weather
 - 1. Relation to population distribution
 - 2. Relation to human occupations
 - 3. Relation to health and energy
 - 4. Climate and homes
 - 5. Weather and human well-being

IV. *Activities*

A. Activities correlated with English

1. Read about the early explorers of the stratosphere
2. Prepared written reports
 - a. On present theories regarding the causation of storms
 - b. On progress in long-range forecasting
 - c. On the United States Weather Bureau
3. Panel discussions

B. Activities Correlated with Art

1. Drew a diagram showing the composition of the atmosphere
2. On a map of the world drew and named the climatic regions of the earth and the ocean currents
3. Showed the direction of the prevailing winds on a world map

C. Activities Correlated with Mathematics

Below are tables showing the temperature and rainfall of five cities located in different climatic regions of the world. Make a graph for each city, using the data in tables which follow.

1. Low latitude wet regions

PARA, BRAZIL

1° 28' S., 48° 29' W., Altitude 33 feet

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
Rainfall	12.7	13.9	13.9	13.1	9.4	5.9	5.2	4.7	3.7	3.3	2.1	6.0
Temperature	75	77	77	77	79	79	79	79	79	79	79	79

2. Low latitude wet and dry regions

CALCUTTA, INDIA

22° 32' N, 88° 20' E., Altitude 21 feet

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
Rainfall	0.4	1.0	1.3	2.3	5.6	11.8	13.0	13.9	10.0	5.4	0.6	0.3
Temperature	65	70	79	85	85	84	83	82	82	80	72	65

3. Low latitude dry regions

ASWAN, EGYPT

24° 2' N., 32° 53' E., Altitude 363 feet

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
Rainfall	0	0	0	0	0	0	0	0	0	0	0	0
Temperature	61	66	72	81	86	91	91	91	90	84	73	64

4. Middle latitude Mediterranean type

ROME, ITALY

42° 15' N., 12° 15' E., Altitude 164 feet

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
Rainfall	3.1	2.5	2.7	2.7	2.3	1.6	0.7	1.1	2.8	4.6	4.6	3.5
Temperature	44	47	51	57	64	71	77	76	70	62	52	46

5. Middle latitude subtropical humid

TOKYO, JAPAN

35° 50' N., 139° 50' E., Altitude 90 feet

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
Rainfall	2.0	2.6	4.3	5.3	5.9	6.3	5.6	4.6	7.5	7.2	4.6	2.3
Temperature	37	38	44	54	62	69	75	78	72	61	51	41

D. Activities Correlated with Science

1. Made a diagram of an altimeter and explained its uses
2. Made and calibrated a barometer

E. Other Activities

1. Committee reports of research
2. Comparisons of findings
3. Visited a weather station
4. Visited the airport and examined an altimeter
5. Listed daily the type of clouds in the sky while studying the unit
6. Kept a daily record of barometric pressures for a month

V. Evaluation

- A. The following questions formulated by students and teacher were discussed and answered to the satisfaction of all:

1. What is weather? What is climate?
2. Name the three layers of our atmosphere and give the characteristics of each layer.
3. How do we measure air pressure?
4. What is the average weight of atmosphere at sea level?
5. What are contour lines?
6. Describe the winds of the North Atlantic. Describe the world wind system.

7. How does the rotation of the earth affect the direction of the winds? Identify and account for the direction of air flow in each of the following: (a) prevailing winds, (b) trade winds, (c) antitrade winds, (d) polar easterlies, (e) horse latitude, (f) doldrums
8. Name the six great air bodies that are makers of American weather.
9. What is a high pressure area? Describe wind directions in a high pressure area. Describe weather in a high pressure area.
10. What are cyclones? What are anticyclones?
11. What is a low pressure area? Describe the wind direction in a low pressure area. Describe the weather in a low pressure area.
12. Give the altitude ranges and composition of the different types of clouds. What are the distinguishing characteristics of each cloud type? Of what value is each cloud type in giving some clue about weather changes?
13. What are ocean currents? How do oceans influence the climate of the land?
14. What is a tundra? Describe the type of homes found in the tundra. List the natural conditions that have influenced home building.
15. Describe the homes of Alaska, Russia, Egypt, southern California, and list the climate conditions that have influenced home building in each area.
16. Give specific illustrations of the influence of weather and climate upon human occupations.
17. How does climate affect man in the tropics? temperate zones? polar zones?
18. Why are the rainy low latitude regions, with few exceptions, sparsely populated, and in a low state of civilization? How do the temperature and rainfall conditions influence man's physical and mental efficiency?
19. Why are the regions in the wet and low latitude climate the most densely populated sections in the low latitudes? How long is the rainy season in Calcutta and in what season does it occur?
20. What are the causes for the large daily range of temperature on the low latitude desert of Aswan, Egypt? How do people adjust living conditions to this range?
21. What general statements can you make concerning the rainfall in the Mediterranean type of climate? the temperature?

22. What conclusions can you draw concerning the amount of seasonal distribution of rainfall in the subtropical humid region? temperature?
 23. Determine the location of the world's greatest desert regions and explain why they occur in certain latitude belts or in special types of geographical regions.
- B. Written summaries of conclusions were made.
 - C. Picture tests were given.
 - D. Tests were given on climatic graphs.
 - E. Oral and written tests covering content were given.

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NOTES

UNIT III

**HOW CAN WE HELP TO PROMOTE A BETTER UNDERSTANDING
AND APPRECIATION OF OTHER PEOPLES?**

This year was our high school's fiftieth anniversary. All classes and clubs were called upon to carry out some activity that would help to celebrate this event. The geography club was asked to build a float for a parade. Since the members of the geography club were also members of the Global Geography class (all seniors) they decided to coordinate their club project with their class work. The students felt that by means of the float they could bring their class project before the local community. The first step was to decide upon a problem that would serve as a class as well as a club project. Some time was consumed in discussing problems to be studied. Numerous problems involving international relations and efforts at world peace were suggested. The problem which was finally suggested and accepted by the students was "How Can We Help to Promote a Better Understanding and Appreciation of Other Peoples of Our Community, Country, and World, and the Land in Which They Live?"

I. Orientation

Preparation of the classroom for initiating the unit was done by pupils and teacher working together.

- A. Pictures, population maps, charts, and graphs found in current newspapers and periodicals were displayed on the bulletin board.
- B. Reading materials (books, periodicals, and pamphlets) were collected and displayed.
- C. Letters were written to federal and state bureaus for recent statistical materials on population.
- D. Several class periods were used to make a list of problems and to plan activities. Plans were also made for building the float. Since the unit was aimed at the development of better understanding between peoples of the community, nation, and world, the students decided to build the float around the following theme: "Peace and Security Through World Understanding." The color scheme of the float was to be red, white, and blue. On the float would be a huge globe or map, flags of nations, a girl representing the goddess of peace, and students dressed in costumes of different nations.

II. Objectives

- A. To see in our studies of peoples the similarities which exist in ways of living everywhere and to discover common bonds with peoples of other nations
- B. To understand how various cultures provide ways of meeting such basic needs as housing, food, recreation, and health, and what a large part environment plays in the way a person lives
- C. To respect the contributions that people of other cultures and races make to our home, school, and community
- D. To view critically the needs, problems, and desires of other people in their natural setting
- E. To develop a feeling of deep concern for the well-being of all members of the immediate circle and for people everywhere
- F. To eliminate prejudices and stereotyped concepts of peoples of other nations
- G. To appreciate the art, music, and literature of other peoples
- H. To understand that the well-being of every man, woman and child in our community is affected by what people do thousands of miles away in foreign countries
- I. To stimulate students' interests in other peoples and lands
- J. To develop habits and skills involved in learning about and in analyzing problems of international regions
- K. To understand the role of air transportation and instantaneous communication in bringing the peoples of the world closer together

III. Content

- A. *Population pattern within the local community*
 - 1. Concentration and density of the population within the local community
 - 2. Different nationality groups within our community
 - 3. Uses of resources within our community and adjustments to environment
 - 4. Effect of conservation on the standard of living in the local community
 - a. Soil conservation—man's dependence upon soil for food, effect of scientific methods of production of food supply
 - b. Forest conservation—safeguarding of lumber supply
 - c. Water conservation—importance of adequate and pure supply for health and safety of people
 - d. Lack of conservation and its effect on people
 - 5. Contributions of different cultures to community life

6. Similarities within the different cultures
 7. Standards of living within our community compared with those of other communities the world over
 8. Interdependence of people—different workers and economic activities within the local community and the world community
- B. *World pattern of population and its world significance*
1. Concentration and density of the population of the world
 2. Location of densely, moderately, and sparsely peopled areas
 3. Relation of natural features and natural resources of the earth to the distribution of population
 - a. Influence of climate on the distribution of people
 - b. Effect of climatic conditions on the kind of home, clothing, food resources, health, and recreation of peoples throughout the world
 4. Influence of land forms, soils, and water resources on the distribution of population
 5. Uses man has made of the earth's resources in the regions of dense, moderate, sparse population, and reasons for following these activities:
 - a. Hunting and fishing
 - b. Grazing
 - c. Agriculture
 - d. Lumbering
 - e. Quarrying and mining
 - f. Manufacturing
 - g. Commercial activities
 6. Influence of population on nations
 - a. Advantages of a large population
 - b. Disadvantages of a large population
 7. Development of facilities for interchange of goods
 - a. Amount of ocean shipping
 - b. Uses of lakes, rivers, and canals
 - c. Highway and railroad development
 - d. Development of air routes
 8. Effect of the air age on our frontiers of the future
- C. *Peoples and cultures of the major nations and the lesser nations* (nations to be selected by students)
1. Outline for study of major and lesser powers
 - a. Location and size
 - b. Physical features
 - c. Climatic conditions
 - d. Natural resources and their distribution
 - e. Composition and distribution of people and similarities in ways of living



HIGH SCHOOL GEOGRAPHY CLUB PREPARING ITEMS FOR
USE ON FLOAT IN SCHOOL—COMMUNITY PAGEANT

- f. Government
- g. Agricultural and industrial development and effect on living standards
- h. Commercial importance
- i. Development of transportation and communication
- j. Relation to other nations

IV. *Activities*

A. *Drawing Activities—Correlated with Art*

- 1. Maps—world population, resource, physical, and rainfall. Polar projection map for use on float—two disks, six feet in diameter, blue background with continents painted in white
- 2. Printing—motto for float and club poster
- 3. Graphs and charts—areas of major nations compared with area of the United States; the population of China as compared with that of the United States; the population of Europe; mineral and other natural resources of great powers

4. Costume plates—drawings of different national costumes
 5. Blueprint—design for float
- B. *Written Activities—Correlated with English*
1. Wrote research papers—used topics studied in geography classes.
 2. Wrote essays on the following topics: “Is Our World Overpopulated?” “How Can the People of the World Be Better Fed?” and “How Can We Create a World Order in Which Conflicts Are Solved Without Resort to Force?”
 3. Wrote a news column for the school paper and one for the local newspaper
 4. Wrote script for news broadcasts given over school’s public address system. All written work opened up problems of structure, form, spelling, and vocabulary.
- C. *Oral Activities*
1. Panel discussion
 2. Socialized recitation and class discussion
- D. *Dramatics*
1. Dramatizations prepared by small groups featured such topics as “Planning for a Better Fed World” and “The Interdependence of People in the World of Work.”
 2. Folk dances of different nations were presented in assembly.
- E. *Community Contacts*
1. Students made personal calls on various businessmen to secure a truck for the float.
 2. Shopped in local stores for poster paper, cardboard, paint, brushes, crepe paper, nails, hooks, and tacks.
 3. Visited lumber yard to select and buy wood for framework of float and for flagstaffs.
 4. Visited business establishments to borrow flags of nations.
 5. Made visits to various homes within the community to borrow costumes of nations.
- F. *Correspondence*

Appreciation of other peoples and cultures was enhanced for the students through the experience of personal correspondence with pupils in the schools of other countries. The students shared such information as descriptions of themselves, the make-up of their families, and interesting facts about school, community, pets, and hobbies. Snapshots, newspapers, pictorial magazines, and small gifts were also exchanged. Students receiving letters from pen pals brought them to school and shared them with their classmates. Some of the letters, photos, and newspapers were displayed on the bulletin board. The letters, pictures, and stories of city and home



FLOAT CONSTRUCTED BY A HIGH SCHOOL GEOGRAPHY CLUB
FOR A SCHOOL AND COMMUNITY PAGEANT

living made the students feel they knew their pen pals very well indeed. The small towns and cities of the pen pals became very real spots on the map.

G. *The Role of a Good Neighbor*

The geography club sponsored a drive to raise money which could be used to send CARE packages to needy families abroad. The drive was launched and within a week twenty-five dollars was contributed by students who gave because they wanted to help.

H. *Construction Work—Correlated With Shop and Mathematics*

1. Measurements of truck framework
2. Calculating the amount of materials needed to cover float
3. Building framework for truck according to measurements
4. Building stand to hold large disk of world

I. *Other Activities*

1. Reports of research
2. Comparisons of findings
3. Completing of float and participating in parade
4. Individual and group reports of topics

5. Follow-up committee—a committee set up to keep the class informed about new developments related to the unit

V. *Evaluation*

The evaluation of our unit took place throughout the entire teaching process.

1. Basic questions formulated by pupils and teacher were seriously and ultimately answered to the satisfaction of each pupil.
 - a. Were the sources we consulted reliable?
 - b. Were our references and materials adequate for a thorough study of the unit?
 - c. Did all pupils have an opportunity to participate in planning and developing problems?
 - d. Did all pupils have an opportunity to gain practice in oral and written expression?
 - e. Do we have a better understanding of all the implications of the problem?
 - f. Are we concerned enough to continue to study the problem?
2. Written summaries of conclusions were made by each pupil.
3. Students engaged in self-evaluation by writing a statement of what they had gained and what weaknesses were present in their work on the unit.
4. Tests were given throughout the unit.

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UNIT IV

**WHAT FACTORS INFLUENCE THE INTERNATIONAL ACTIVITIES
OF OUR NATION? ¹****I. Objectives**

- A. To understand how our nation's size, location, topography, climate, mineral resources, and other physical conditions affect the development of the national pattern
- B. To understand how the factors of the physical environment and the type of government affect the distribution of population, of industry, and of transportation
- C. To understand how size, location, climate, natural resources, and the people themselves affect our nation in its relations with other nations
- D. To develop an attitude of sympathetic understanding of and an appreciation of the problems, ideals, and traditions of other nations. These problems, ideals, and traditions are due in part to a people's adjusting to a specific native environment and, in part, to historical factors and the dynamic technology of the modern world.
- E. To understand that the progress of modern technology requires constant re-evaluation of such factors as location, accessibility, land, water and airways, and the utilization of natural resources
- F. To understand the forces underlying the formulation of American foreign policy and its proper evaluation in the light of changing world conditions
- G. Certain specific abilities and skills are needed also:
 - 1. Reading and interpreting maps of all kinds
 - 2. Making, reading, and interpreting graphs
 - 3. Increasing one's vocabulary consciously and continually
 - 4. Reading newspapers and magazines with discrimination
 - 5. Process of problem-solving
 - 6. Discussion of controversial subjects

II. Approach

- A. Current happenings and live questions were discussed by the class.
- B. Current events selected from newspapers, magazines, and other sources were reported upon and displayed on the bulletin board.

¹ This unit is based on the various experiences in several senior high school classes.

- C. Pictures, maps, graphs, and charts showing physical, cultural, and economic features of our country were collected and displayed.
- D. Discussion of our ancestors resulted in the realization that the ancestors of the members of the class came from many nations of the world.

III. *Procedure*

Reports by various committees were made on the following topics:

- A. Factors which have favored growth and industrial expansion of the United States
- B. Geopolitical position of the United States as determined by the events of world wars
- C. Defense of the United States
- D. Relations with the other Americas
- E. Our position in world affairs
- F. Geographic features of the United States
 - 1. Human features
 - a. Population distribution and density
 - b. Racial and national character of population
 - c. Colonial expansion and development
 - d. Sphere of influence
 - e. Government
 - f. Political alliances
 - 2. Physical features
 - a. Size and shape
 - b. Location and accessibility
 - c. Land and water boundaries
 - d. Relation to the ocean
 - e. Land forms and drainage
 - f. Climate
 - 3. Economic features
 - a. Natural resources and their utilization
 - b. Land use
 - c. Industrial development and output
 - d. Distribution and volume of imports and exports
 - e. Foreign investments
 - 4. Influence of modern transportation and communication

IV. *Activities*

The following are types of learning activities:

- A. Reading newspaper and magazine articles bearing on the problem
- B. Collecting data from books, newspapers, and magazines
- C. Collecting and preparing statistics and graphs needed in a particular problem

- D. Interviewing and reporting on interviews with people who have had direct contact with the specific nation and people whose problems are being considered
- E. Reading and interpreting maps of political, physical, and other patterns needed as sources of information or to clarify the problem
- F. Taking an active part in class and group discussions
- G. Listing ways in which the problems affect our community—politically, economically, culturally

V. *Evaluation*

- A. Pupil self-evaluation in terms of individual's needs
- B. Pupil-teacher evaluation of progress of unit and value of unit

VI. *Materials*—Books, magazines, newspapers, pamphlets, maps, pictures

BOOKS

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 Thralls, Z. A., *The World; Its Lands and Peoples*. New York, Harcourt, Brace & Company, 1949
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NEWSPAPERS

- The New York Times*
The New York Herald-Tribune
The Christian Science Monitor
 Local and district newspapers
 School weekly newspapers
Our Times—American Education Press
Current Events—American Education Press
Every Week—American Education Press

MAGAZINES

- | | |
|------------------------|-------------------------------------|
| <i>Time</i> | <i>Foreign Agriculture</i> |
| <i>Newsweek</i> | <i>National Geographic Magazine</i> |
| <i>Harpers</i> | <i>Journal of Geography</i> |
| <i>Fortune</i> | <i>Economic Geography</i> |
| <i>Commerce Weekly</i> | and others— |

PAMPHLETS

- Foreign Policy Headline Series
 Reports of the United Nations and its various groups, such as UNESCO

MAPS

- Physical map of the world and of each one of the continents
 Political map of the world and of each one of the continents
 Distribution maps of population, crops, livestock, mineral resources, etc.
 Maps of special strategic areas, such as the Mediterranean region, the Carribean, Indonesia

SOURCES OF STATISTICS

- Statistical Abstract of the United States, 1950*
World Almanac
 Yearbooks which give up-to-date statistics on particular areas and countries

UNIT V

WHAT FACTORS DETERMINE THE QUALITY OF OUR COMMUNITY?

*Problem Title**Living and Doing Learning Activities*

What factors helped determine the boundaries of our community?

1. Why are boundaries necessary?
2. How were the boundary lines determined?
 - a. Which follow natural features in the landscape?
 - b. Which cut across natural features?
 - c. Do any separate entirely different groups of people?
3. Are any of the boundary lines of our community "disputed" boundary lines? Why?
4. How are public questions such as disputed boundary lines settled?
5. What community activities are limited by our boundary lines?
6. What boundary lines exist within the community? (zoning laws)
7. What activities within the community are limited by zoning laws?
8. How do boundaries protect us?

Write a business letter to Archives Publishing Co., Harrisburg, requesting a map of the local community; and one to the Department of Highways, Harrisburg, for a highway map of the county.

Study the maps to locate the boundaries of the community.

Plan and take one or more field trips to locate the boundaries and to note the locations in relation to natural features. How are boundary lines indicated in the landscape? How are they determined?

Have a committee appointed to study and report on surveying as an occupation.

Invite a surveyor to discuss his work with the class.

Discuss field trips from viewpoints of contributing to healthful living, developing hobby for leisure time, preserving natural beauty of area, and learning to get along with others.

Consult local papers and interview local officials to discover whether boundary disputes exist. If so, set up problem for investigation, gather facts related to problem, organize facts, and suggest possible solutions.

Investigate the ways of settling public questions and the influence of newspapers, radio, etc., on public opinion.

Invite tax collector to discuss with class the problem of taxing in relation to boundary limitations; a school board member to discuss educational opportunities in relation to boundaries and present trend toward joint school districts; and other community members who may make significant contributions to study of community problems related to boundary limitations.

Materials, Books and Sources	Evaluation Procedures
<p>Map of Local community Archives Publishing Co. Harrisburg. 50¢</p>	<p>Did individuals show growth in getting along with others? Did they share in planning the work?</p>
<p>Map of county Department of Highways Harrisburg. 50¢</p>	<p>Did they take an interest in exploring the community as a form of recreation? Did they see a relationship between this form of recreation and health?</p>
<p>Topographic map of area U. S. Geological Survey Washington, D. C.</p>	<p>Did they show growth in use of scientific method of solving problems? Did they take care to preserve natural beauty when on field trips?</p>
<p>National Council of Geography Teachers, <i>Geography in the High School</i>, McKnight and McKnight, pp. 86-94. Explains use of geological survey maps at high school level.</p>	<p>Did they indicate leadership ability? Did they improve their written and spoken English?</p>
<p>Local newspapers</p>	<p>Did they learn to listen with understanding? Did they improve in reading ability?</p>
<p>U. S. Employment Service, <i>The Job of the Surveyor</i> Superintendent of Documents Washington, D. C., 5¢</p>	<p>Did they take an interest in community problems? Did they learn to plan work time efficiently?</p>
<p>Published in 1946; an occupational brief containing summary earnings, outlook, qualifications, and training.</p>	<p>Did they show growth in ability to conduct an interview? Did they show interest in learning about the work of other people?</p>
	<p>What map signs did they learn to read?</p>
	<p>Did they show growth in interpreting maps?</p>
	<p>Do they relate specific map signs and specific landscape items?</p>
	<p>Do they understand the geographic significance of boundary lines?</p>

UNIT VI

**HOW CAN WE AS INDIVIDUALS AND AS A NATION IMPROVE
HUMAN AND INTERNATIONAL RELATIONS? ¹**

Following a class discussion of a current events topic on the United Nations Organization and its efforts to bring about international understanding and cooperation among nations of the world community, the seniors suggested that we select, for future study, nations which we need to know better. We decided to start with the Soviet Union as a country very different from ours which we shall need to understand if the United States and the Soviet Union are to work cooperatively together.

I. *Orientation*

The following preparation for launching the unit was made by the pupils and teacher working together:

- A. Pictures, graphs, statistics, and newspaper clippings were displayed on the bulletin board.
- B. Students arranged the bookshelves and library tables with books, magazines, and pamphlets.
- C. A number of class periods were used to list problems and plan activities.
- D. Committees were organized to make a special study of people, natural conditions, natural resources, agricultural and industrial development, transportation, government, Five Year Plan, religion, health, sports, music, ballet, and other topics of interest to the group. Each student joined the committee of his choice.

II. *Objectives*

- A. To understand the people of the U.S.S.R., their activities, and the natural factors which influence their activities
- B. To gain a knowledge of the population, density and distribution, and to learn how the Russian peoples have adjusted their ways of life to different environmental conditions
- C. To understand the strategic and commercial importance of the U.S.S.R. to our country and to other lands
- D. To acquire a knowledge of geographic facts and principles which will enable the student to interpret for himself present conditions and current problems
- E. To accept personal responsibility for improving human and international relations

¹ A unit developed in the Global Geography class, grade 12, New Kensington Senior High School.

III. *Outline of Content*

A. *Location and Size*

1. Range of latitude—almost entire country lies north of the United States. Black Sea and Caspian Sea in latitude of the Great Lakes.
2. Range of longitude—extends almost halfway around earth
3. Area—one-seventh of earth's surface
4. Location in respect to land and water bodies
5. Proximity to the United States

B. *Population*

1. Composition and distribution of
2. Languages and dialects
3. Number—one-tenth of world's people
4. Government—structure, organization, administration
 - a. Constitution of 1936
 - b. Five Year Plan—Economic Objectives
Results—industry, agriculture, transportation, education, mining, and power development
5. Religion
6. Education

C. *Major Physical Features*

1. Lowlands—vast plains not much above sea level
2. Highlands of southern U.S.S.R.
 - a. Influence of east-west direction in flow of rivers
 - b. Influence of east-west direction on climate
 - c. Names of highlands from east to west
3. Northern highlands
4. Baltic uplands
5. Central Russia uplands

D. *Climatic Characteristics—cold and aridity dominant features*

1. Controlling factors
 - a. Latitudinal position
 - b. Wind belts
 - c. Marine influence
2. Precipitation

E. *Vegetation or land belts*

1. Tundra
2. Taiga
3. Black soil belt—"Grain Breadbasket of Europe"
4. Steppe
5. Desert
6. Mountains

F. *Natural Resources*

1. Mineral wealth
 - a. Vast deposits of coal
 - b. Large quantities of iron ore in central and southern regions
 - c. Oil in southeastern section
 - d. Other minerals
 - e. Nonmetals
2. Hydroelectric power
3. Forests

G. *Agriculture*

1. Amount of arable land
2. Location of arable land
3. Agricultural frontiers
4. Methods used to increase agricultural area
5. Organization of farms
 - a. Collective farms
 - b. State farms
 - c. Equipment
6. Products

H. *Other Industries*

1. Lumbering widespread
2. Textile manufacturing—linen, cotton, wool
3. Food industries
4. Fishing industries—sturgeon and preparation of caviar dominant in Volga River section
5. Grazing—use of steppes for cattle and sheep grazing; breeding of fine, spirited horses
6. Mining

I. *Transportation*

1. Railroads
2. Utilization of waterways
3. Highways
4. Airways and their effect on the geography of the country

J. *Communication*

Use of radio, press, telephone as compared with other countries

K. *Chief Cities*L. *Relation of U.S.S.R. to Other Countries*

1. Neighbors in Europe
2. Neighbors in the Far East
3. Russia and the British Empire

4. Russia and the United States
 - a. Location in respect to the United States—Bering Strait
 - b. Past and present relationship

IV. *Activities*

A. *Written and Oral Activities—Correlated with English*

1. Wrote research themes.
2. Letters were written for illustrative materials.
3. Pupils planned and conducted forum activities.
4. Made oral reports to accompany lantern slide lecture on Soviet Russia.
5. Stories of Soviet Russia were dramatized.
6. Compiled a dictionary of terms learned during unit.
7. Debated political issues.

B. *Activities—Correlated with Mathematics*

1. Using statistics of population, production, etc., in connection with reading and writing of numbers and making graphs to accompany study of Soviet Russia.
2. Making and solving problems involving information gained by making comparisons between Soviet Russia and the United States.
3. Solving problems involving amount of rainfall in various sections of the country, in finding great circle routes, etc.

C. *Activities—Correlated with Art*

1. Booklets, posters, and descriptive itinerary folders for various districts of Soviet Russia.
2. Salt-and-flour maps to show the physical features of Soviet Russia.
3. Large picture maps to show distribution of products and industries of various sections.
4. Scrapbooks of interesting materials on U.S.S.R.
5. Display of costumes, dolls, and articles borrowed from homes within the community.
6. Series of graphs to compare population, area, and exports of Russia with those of the United States.

D. *Activities—Correlated with Music*

The following records for appreciation of different types of Russian music were borrowed from the music department and from homes in the community.

Nutcracker Suite—Tschaikovsky

1812 Overture—Tschaikovsky

Andante Cantabile—Tschaikovsky

Flight of the Bumble Bee—Rimski Korsakov

A Music Box—Rimski Korsakov
Dance of the Tumblers—Rimski Korsakov

E. *Other Activities*

A committee of students selected the film "Peoples of the Soviet Union" (a sound film, 35 minutes, a detailed view of the many different types of people living in the U.S.S.R. and their special customs and characteristics); previewed it; and prepared study questions on it. They conducted a discussion following the film.

V. *Evaluation*

- A. As an evaluation check-up the pupils wrote stories on how they felt about the U.S.S.R. after their study.
- B. The following questions were formulated and answered by pupils:
 - Have I consulted reliable sources?
 - Have I a better understanding of all the implications of the problem?
 - Am I concerned enough to continue to study the problem and to try to do something about it?
- C. Class reports and committee reports were evaluated.
- D. Tests—oral and written.

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CHAPTER IV

EVALUATION

NEED FOR COMPREHENSIVE EVALUATION

Evaluation in geographic education has more meaning than the term measurement. It is the process of gathering, interpreting, and using evidence on improvement in the behavior—thinking, feeling, and acting—of students. It includes as much objective measurement as possible. Evaluation is concerned with the all-around development of the learner. It is a means of appraising all aspects of total growth which indicate how much comprehensive learning is being achieved.

Research has established that the learner functions as a unit. The various physical, emotional, and intellectual aspects of his personality do not act independently. They are highly correlated. When functional learning occurs, there is total growth in the way in which the learner thinks, feels, acts, and goes on to further learning experiences. This comprehensive personal growth is well recognized in statements of school and course objectives.

The statement of objectives is but one step in planning a course of study or an experience unit. Learning activities for the attainment of each objective must be organized. In addition, means for the evaluation of each objective must be a continuous and integral part of education. Otherwise statements of objectives are but sterile phrases.

It is important that evaluation in geography education be as comprehensive as possible. It generally determines the type of teaching. *The types of appraisal—tests, check lists, questionnaires, and observation—determine what is taught and how it is taught.* As long as total or major emphasis is placed on the student's ability to recall facts—regardless of their relationships or use or his needs—teachers will give maximum significance to memorized learning.

Teachers and makers of tests are being challenged to develop comprehensive types of evaluation. This is one of the most pressing problems of education.

Dan W. Dodson, Managing Editor of *The Journal of Educational Sociology*, writes:

"The problem of evaluation is, perhaps, the greatest plague of education today. Of the billions of dollars spent on education—one of our greatest American enterprises—we know very little about what action produced what results. No business could afford such an extravagance.

"Educators violate almost every tenet they profess when they come up against this problem . . . What we test for as an end result in education is going to determine what we teach.

"Has not the time come for American educators to face this problem realistically and develop methods of evaluation which will move the present program out of the doldrums?"

EVALUATION BASED UPON OBJECTIVES

The committees which produce courses of study generally propose the following types of objectives: (1) functional information or facts, (2) functional concepts, (3) functional understandings or principles, (4) instrumental skills, (5) problem-solving skills, (6) attitudes, (7) appreciation, and (8) behaviors.

As these objectives are studied, the broadening of the scope of education in the last generation is apparent. It is clear also that teaching and evaluation of the desired outcomes—beyond the first objective—have become more important, more varied, and more difficult. Here is a problem on which a geography teacher can sharpen his wits.

S. C. Bolsted, President of the Educational Test Bureau, writes in the April 1950 issue of *Phi Delta Kappan*:

"The publisher surveys the situation and seems to find that education can be benefited by a new achievement battery of standardized tests, built to meet present-day emphasis in education. What is that emphasis? There is no question about it. The emphasis is on functional education. In building a standardized achievement battery of tests . . . there can be no side-stepping the functional tasks. . . . The preliminary tests are sent out and administered. . . . However, when these experimental try-outs return to be scored, it is a surprise to find that students score nearly zero on all functional questions. The achievement battery . . . has to be chiefly a test of memorized facts.

"The need is to continue to develop functional teaching and not permit ourselves to gallivant off to other thoughts and slogans."

It is apparent that the functional objectives of education are not being fairly met by many present practices, and also that better evaluation can contribute to better teaching. By the same and other evidence, if the behaviors

which are expected from functional teaching are to be evaluated comprehensively, it must be by methods which are developed, reported, and shared by teachers in action.

The evaluation of these desirable behaviors includes evidence that interests and attitudes are being developed, that work habits and study skills have become more efficient. They reveal themselves in how the student interprets data, thinks both deductively and inductively, attacks problems, and uses geographic facts, generalizations, and principles in new situations. They are revealed also in the life adjustments which the learner is making with respect to his imperative adolescent needs—work, health, citizenship, home, thrift, scientific understanding, appreciation, leisure, sociability, and good English usage. At a glance, the obtaining, recording, and reporting of all of these data seem to be work for a paragon of professional efficiency. However, there are many things that a busy teacher can do. Some of these are suggested in the following pages.

JUDGING THE RESULTS OF TEACHING

The teacher who would judge the results of his teaching must have a clear idea of *why* he is teaching. If the aim is merely to “cover the text,” most of the value which education can provide will be lost. The final test is, How well does the student meet the problems of learning and of living day by day? Outcomes should be stated and evaluated in terms of the behaviors—thinking, feeling, and acting—which are needed to meet those problems. When outcomes are defined in terms of desirable behaviors, instruments for their observation and recording can easily be produced.

PUPIL PARTICIPATION IN EVALUATION

The pupils should be permitted to share in evaluation, just as they share in the planning and carrying out of all phases of learning through problem-solving both in and outside the classroom. Some ways in which the pupil participates directly in evaluation are:

1. He accepts certain goals as being significant to himself. These serve as motivation to his learning.
2. He may help the teacher and class group define accepted goals in terms of pupil behaviors.
3. He may suggest experiences valuable in achieving these goals.
4. He frequently cooperates in helping to determine and identify situations in the school, home, community, and elsewhere which are fruitful for appraising desired results.
5. He will aid in securing records of his progress toward accepting goals. These may include samples of written work, creative

projects, hobbies, records of recreational reading, radio listening, and many other similar activities.

6. He will share in interpreting recorded behavior—determining what it means in the light of desired objectives.

VALUES OF SELF-APPRAISAL

1. It provides practice in a technique which may function in guiding learning and adjustment throughout life.
2. It enables the pupil to learn better how to judge and place values upon his daily adjustments to life.
3. Successful social living and responsible citizenship require the ability to evaluate regularly one's contributions to his family and to national and international welfare.

There needs to be a departure from the customary role of testing "to separate the sheep from the goats and to see that the goats don't get a sheepskin." *The rapport that characterizes good teaching should also characterize good evaluation. The cooperation of the student in appraising his own growth is an essential procedure in motivation.* Working for marks or grades or on a low level of coercion increases the degree of artificial memorized learning.

The tendency of pupils to consider an evaluation a sort of punitive measure is not entirely without foundation. This produces a conflict situation between pupils and teachers. A successful teacher will dissipate this tension. Cooperative means for evaluation have been discussed in the section "Teaching by Units" in Chapter II. Such student understanding and appreciation are behaviors which good evaluation will create.

TECHNIQUES OF EVALUATION

Judging the results of functional teaching is similar to a physician's diagnosis. He uses instruments for objective measurements. He secures subjective data by interview and observation. From all of these, he appraises his patient's health. By the same token, the means which are being used in education for comprehensive evaluation include:

1. Paper-pencil Forms

(1) Improved essay-type examinations, (2) standardized tests, (3) homemade objective tests, (4) behavior rating scales, (5) check lists, (6) pupil logs or diaries on what was learned from day to day or on what contribution the pupil made to a class discussion or project, (7) anecdotal records, (8) cumulative school records, (9) questionnaires on pupil needs. Teachers are familiar with these procedures.

2. Classroom Questioning and Discussion

This should indicate what problems pupils have. Pupils may be asked to submit problems. Subgrouping may be employed for study, discussions, and reports. A simple check list, used by the teacher, will indicate after each student's name the degree and nature of his participation, perception, and committee leadership.

3. Laboratory Skills and Behaviors

Here a simple check list of pupils' names and desirable types of behavior is of great assistance in day-by-day evaluation. Important criteria are to be found in the way a student attacks problems, gets down to work, arranges materials, keeps surroundings neat, works with others, uses reference material, weighs evidence, forms conclusions, and records results. Descriptive quantitative ratings or anecdotal recordings of what is actually observed may be used.

4. Individual Interviews

Here there is more opportunity to appraise a student's needs, interests, and attitudes than in either a quiz or a discussion. Rapport should be established which will lead the student to talk freely. Brief anecdotal records will be of value to the great teacher, whose satisfaction comes from helping to produce wholesome men and women. The ability to interview students in this manner can be gained by any teacher. Yet, 61 per cent of a sampling of 1,240 twelfth grade students state that they do not feel free to talk with some member of their faculties, and 36 per cent of the dropouts state that they would have remained in school if any one teacher had been interested in them.

5. Questionnaire and Check Lists

Tests generally help to find out what a student remembers. One of the best ways to find out how youth thinks, feels, and acts, is to ask youth themselves. A questionnaire provides an easily constructed instrument for this end. Pupils express themselves very frankly on questionnaires whether they sign them or not. The group reliabilities are high. They can be constructed to measure any aspect of behavior and provide valid and interesting results both for student self-appraisal and for teacher information. They may be prepared to reveal attitudes, opinions, and behaviors.

Check lists are also easily constructed. They provide for day-by-day student self-appraisal in the development of study habits, health behaviors, and other skills which are needed for living and learning.

EXAMPLES OF THE USE OF MODERN EVALUATION

Examples are always better than advice, yet not so frequent. Good instruments—functional test items, questionnaires, and check lists—are all too scarce. Many more are needed for a later edition of this bulletin. Those instruments

that do exist provide valuable suggestions for the construction of more and better ones.

Several examples are presented in accordance with the purposes for which they are being used:

1.

EVALUATION OF A SCHOOL'S GEOGRAPHY PROGRAM BY USING THE EVALUATIVE CRITERIA

The inclusion of the standards adapted from the 1950 edition of the *Evaluative Criteria*¹ of the Cooperative Study of Secondary School Standards is by courtesy of the Study. The *Criteria* provide similar sections for self-appraisal and curriculum improvement in all subject areas. The principles are the same in all cases. The teacher is referred to the *Criteria* for complete treatment. The use of these standards is urged as a form of self-evaluation by all teachers. They will be used in school and subject evaluations throughout the United States for the next ten years:

1. *Guiding Principles*

"The curriculum consists of those courses, activities, and units of instruction which are designed to meet pupil needs which are related to the subject. Major emphasis in the curriculum is upon (1) the understanding and application of major principles, (2) the development of competence in the use of the scientific method, (3) the development of desirable attitudes, interests, appreciations, and applications. . . .

"The learning activities are conducted in a classroom-laboratory situation providing opportunity for group instruction and individual and group investigation and experimentation. Pupils also participate in field activities providing opportunity to study and apply principles outside the classroom. . . . During the learning activities, the teacher acts as a guide, keeping a proper balance between pupil exploration and teacher direction."

2. *Instructional Activities*

- (1) Instruction contributes to the school's objectives.
- (2) Instruction is directed toward clearly formulated, comprehensive (long range) objectives.
- (3) Specific instructional activities contribute to the comprehensive objectives of the program.
- (4) There is evidence of careful planning and preparation of the instructional activities.

¹ *Evaluative Criteria*, Washington, D. C., Cooperative Study of Secondary School Standards, 1950.

- (5) Flexible or differentiated assignments are used to provide for individual pupils.
- (6) Resources of the community and environment are used.
- (7) Pupils participate in planning, conducting, and evaluating the instructional activities.

The publication should be consulted for other criteria on provision for individual differences, pupil collection of data and formulation of hypotheses, pupil experimentation, balance between student exploration and teacher guidance, extra-class activities, and use of models, charts, specimens, and audio-visual aids.

3. *Instructional Materials*

- (1) A variety of textbooks and reference materials is available.
- (2) Reading materials are available which provide for differences in the reading abilities and backgrounds of pupils.
- (3) Pamphlets and non-textbook materials are available.
- (4) Magazines are available.
- (5) Well-edited booklets are available.
- (6) Teacher-prepared materials (such as study guides) are available.
- (7) Films, filmstrips, and slides are available.
- (8) Micro-projection apparatus is available.
- (9) Models and specimens are provided.
- (10) Charts, maps, and similar visual aids are provided.
- (11) Audio-aids are available for classroom use.

4. *Methods of Evaluation*

- (1) Evaluation is an integral part of the instructional activities.
- (2) Evaluation activities place emphasis on the growth of the individual toward appropriate objectives.
- (3) A variety of testing techniques is used (e. g., standardized tests, teacher-made objective tests, essay examination).
- (4) Diagrams, charts, and pictures are used in evaluation.
- (5) Objective evaluation is made of the laboratory activity of pupils.
- (6) Evaluation is made of pupil reports of their own laboratory investigations.

- (7) Evaluation is made of pupil ability to apply the elements of the scientific method.
- (8) Evaluation is made of pupil projects which are conducted out of school.
- (9) Pupils participate in the evaluation of their own progress in the learning activities.
- (10) Results of evaluation are used in assisting pupils in the selection of advanced courses.
- (11) Evaluation of changes in behavior uses results from informal conversation with pupils, classroom discussions, and interviews with parents.
- (12) Both teachers and pupils recognize that tests should be used to reveal strengths and to point out areas for improvement.

2.

EVALUATION OF THE TEACHING

Student evaluation of the teaching can be of great value. As partial evidence of the results of teaching, it can help to provide direction for curriculum improvement. The learner's reaction determines, to a great extent, the nature and effectiveness of what he learns.

It requires courage for a teacher to seek this evidence. It will be more valid if questionnaires are not signed. When mimeographed, items may be changed to meet local conditions. See Opinionnaire on page 293.

3.

A STUDENT SELF-RATING CHART OF PROGRESS IN MEETING HIS IMPERATIVE NEEDS

The self-appraisal student rating chart on pages 294-295 may be used twice each year in a class or homeroom: (1) to stimulate needed self-analysis, (2) to call attention of students to areas of personal growth, (3) to recognize these areas appropriately, and (4) to evaluate progress. The items may be changed to suit local conditions when the chart is mimeographed.

STUDENT QUESTIONNAIRE—WHAT ARE YOU LEARNING?

What kind of person a youth becomes is as important as what he knows. Education is concerned with each student's growth as an individual. This chart is intended to help to show you where you are and how you can improve.

You should rate yourself. Then the teacher will add his rating. If you do not know the meaning of any words, look them up.

Mark an X covering the square which best describes how you think, feel, or act with respect to the need which is in the first column.

	NAME		HOME ROOM		SECTION	
	1	3	5	8	10	
NEEDS OF YOUTH	(a) <i>Doubtful</i>	(b) <i>Passive</i>	(c) <i>Productive</i>	(d) <i>Constructive</i>	(e) <i>Creative</i>	
WORK	Gives up Careless Shuns work	Dependent Submissive Follows others	Interested Loyal Leads sometimes	Definite Strong Often leads	Diligent Confident Makes things go	
HEALTH	Slovenly Depressed Stolid	Neat Willing Promising	Healthy Alert Active	Brisk Cheerful Vigorous	Exuberant Enthusiastic Vitalizing	
CITIZENSHIP (school)	Unsound Annoying Critical	Indifferent Unconcerned Conforms	Interested Loyal Careful	Devoted Eager Dependable	Stimulating Inspiring Influential	
HOME ROOM	Petty Anxious Impatient	Rough and Ready Thoughtless Easy-going	Cheerful Deliberate Cooperative	Polite Tactful Warm-hearted	Successful Poised Gracious	

Mark an X covering the square which best describes how you think, feel, or act with respect to the need which is in the first column.

<i>NEEDS OF YOUTH</i>	<i>(a)</i> <i>Doubtful</i>	<i>(b)</i> <i>Passive</i>	<i>(c)</i> <i>Productive</i>	<i>(d)</i> <i>Constructive</i>	<i>(e)</i> <i>Creative</i>
THRIFT	Frivolous Buys on whim Wastes time	Muddled Gullible Impulsive	Serious Knows values Purposeful	Sound Keen bargainer Determined	Reliable Smart trader Independent
SCIENCE	Opinionated Irrational Prejudiced	Credulous Confused Snap judgment	Open-minded Seeks proof Sticks to facts	Curious Systematic Weighs evidence	Inductive Rational Keen
APPRECIATION	Vulgar Common Critical of best	Superficial Erroneous Coarse	Knows form Has good taste Recognizes merit	Enjoys form Refreshing Refined	Artistic Creative Elegant
LEISURE	Cheap taste Childish fun Rough	Underbred Follows others Negligent	Restrained Normal pursuits Respects the best	Good hobbies Has some sport Many-sided	Ingenious Mature tastes Enjoys art, music
SOCIABILITY	Self-centered Timid Rude	Indifferent Passive Proper	Accepted Cheerful Sympathetic	Sought Active Helpful	Esteemed Magnetic Influential
LANGUAGE	Careless Peculiar Dormant	Unreliable Deficient Developing	Accurate Practical Passable	Skillful Forceful Desirable	Colorful Persuasive Delightful

Credit yourself, 1, 3, 5, 8, 10 from left to right for the X's in the five columns. What is your score? How can you rate higher? Check yourself again in six months. Have you improved?

4.

STUDENT SELF-APPRAISAL OF ABILITY TO READ MAPS

CAN YOU USE THE TOOLS OF GEOGRAPHY?

There are many ways in which man's relationship to his natural environment can be shown visually. Indicate to what extent you believe the aims are being met in your case by checking in the appropriate column each item below. ("H" is for High, "M" is for Medium, "L" is for Low)

a. To what extent can you read, understand, and interpret maps?

	H	M	L
(1) Read directions correctly and use a compass			
(2) Read and interpret altitude correctly			
(3) Recognize symbols for cultural and nature items: city, railroad, river, mountain, coastline, etc.			
(4) Interpret symbols by use of the key or legend			
(5) Use scale of miles to estimate distances			
(6) Read and interpret great circle routes			
(7) Read and interpret the latitude and longitude of a specific area			
(8) Recognize the general pattern of a time zone			
(9) Obtain facts from different types of maps and relate one set of facts to another			
(10) Express data in map language			

b. To what extent can you read, understand and interpret graphs, tables, and charts?

	H	M	L
(1) Read with understanding the horizontal and vertical scales			
(2) Determine trends as shown by graphs or tables of statistics			
(3) Read relationships between two or more graphs or tables of statistics			
(4) Determine rank from an unordered table of statistics			
(5) Make bar, line, circle, and picture graphs from tables of statistics			
(6) Use graphs, statistical tables, and charts in solving problems			
(7) Read and interpret specific information from various types of graphs			

c. To what extent can you read, understand, and interpret the actual landscape and pictures?

- (1) Identify the various elements of the environment
- (2) Use the landscape to give concrete meaning to geographic terms
- (3) Associate crops and work activities with specific seasons
- (4) Read relationships between items in the cultural environment and those in the natural environment
- (5) Estimate the standard of living of a people from cultural features in the landscape
- (6) Visualize landscape features in other communities and understand their significance
- (7) Compare the landscape of another area or country with that of your own community
- (8) Recognize many types of landscape features
- (9) Record landscape readings on a map

H	M	L

5.

APPRAISING THE ABILITY TO LOCATE INFORMATION

STUDENT TEST

No one can keep all facts and information he desires in mind, but the information is at his fingertips if he but knows where to seek it. An intelligent citizen should know where to seek information, and geography study should be a great help in this respect.

In which reference or from what source would you be most likely to find the answers to the following questions?

1. Distance between Seattle and Chicago (Use an *atlas* and *scale of miles*)¹
2. Progress made on the Alaskan Highway? (*Encyclopedia* or *World Almanac*)
3. Does Pennsylvania or West Virginia lead in coal production? (*Statistical Abstract of the United States* or *World Almanac*)
4. Should we be interested in China? Has she a large market for our goods? (*Foreign Commerce Yearbook*)
5. What places of interest could you visit on a trip to San Diego, Calif.? (*Santa Fe R.R. Atlas*)
6. Upon which country are we most dependent for our rubber supply? (tea, quinine could be used) (*Foreign Commerce Yearbook*, *Statistical Abstract of the United States*)
7. You are considering a position with Standard Oil in Arabia. You want to find more information about the country and the people. (*World Book*, *Britannica*)
8. You are having trouble producing good crops, and your land shows signs of erosion. To whom could you apply for help? (Soil Conservation Service, Department of Agriculture, for information on specific crops)

¹ These are only suggested answers and not meant to be the only correct response.

6.**READING CHARTS AND TABLES**

You wish to take a trip by train to Gary, Indiana, from Pittsburgh. It is necessary that you attend a meeting at 4 P.M. Use your time table to find what train you should take.

1. Time you will leave Pittsburgh _____
2. Time you will arrive in Gary, Indiana _____
 Since it is July, will you need to make any adjustment in determining the time? Why? _____
 Will you have to make any adjustments for time zones? Explain.
 If you need a map, use your atlas or textbook.

7.**TEST ITEMS USEFUL IN EVALUATING CRITICAL THINKING**

a. Interpreting data in charts, tables, pictures, graphs, and written statements

What are the intervals between meridians and parallels of the following maps? (Teacher should give textbook page references.)

- (1) If the map of Australia were done on 20° intervals would Australia be smaller or larger on the paper? (*much smaller*)
 Why? _____
- (2) What would be the disadvantage? (*less detail*)

b. Drawing conclusions from data gathered

Use this graph (a climate graph) to answer the questions.

- (1) What is the latitude of this station?
- (2) What is the mean annual precipitation?
- (3) What is the elevation?
- (4) What is the pattern of precipitation?
- (5) What is the temperature range?
- (6) Is the station in this area better for the production of coffee, bananas, or cacao?

FORMING GENERALIZATIONS, LOCATING PLACES, AND INTERPRETING DATA

The three following types of test items, Items 8, 9, and 10, on forming generalizations, locating places, and interpreting data are included through the cooperation of the Evaluative Staff of the Eight Year Study:

8.**TESTING ABILITY TO FORM GENERALIZATIONS**

Directions: (1) This is a test to determine your ability to draw sound generalizations from specific statements. You are given below a list of statements concerning our natural resources. Read the statements carefully.¹

¹ A smaller number of similar statements may readily be used in test items of this type.

1. In 1908 representatives of the Western States met for the first time to discuss seriously the problem of conserving our natural resources.
2. Vegetation helps to prevent erosion of the soil by wind and water.
3. Four hundred people lost their lives in the Dayton flood of 1913.
4. In 1900 we had five national parks; today we have twenty-four.
5. When the Civil War began in 1861, food prices rose rapidly. Many farmers began to cultivate land that should have been left in grass or trees, the roots of which would have held the soil together.
6. In 1922 cabinet officials transferred government oil fields to private companies for a fraction of their real value. Officials of the companies bribed the cabinet members to facilitate the transfers.
7. In 1905 the Federal Government took its first steps to combat the forest fires that had previously ravaged the public lands.
8. Up to the beginning of the present century, floods in the Midwest were not common, although Mark Twain writes of one in *Huckleberry Finn*.
9. In 1933 the New York State Conservation Department planted 75,292 acres of idle land to forest trees.
10. The Miami Conservancy District, a subdivision of the State of Ohio, has constructed four dams in order to prevent a recurrence of the disastrous flood of 1913.
11. From 1840 to 1880 large lumbering companies moved into unclaimed tracts of land and stripped the forests before local authorities could complain. By that time the companies had moved elsewhere.
12. Tree roots and grass roots help to hold the moisture in the soil, and thus help to prevent floods.
13. In 1916 the American buffalo was almost extinct; by 1929 the wild duck had almost disappeared in the West. Strict governmental supervision has saved these forms of wildlife for the present.
14. The floods in the Mississippi Valley in 1927 were the most destructive on record.
15. During World War I, millions of acres of grasslands throughout the Great Plains region were plowed in an effort to make easy fortunes while European farmers were at war. Thus the deep-penetrating grass roots were destroyed over a large area of the Middle West.
16. Twenty-eight thousand square miles of territory were covered by water during the floods of 1927.
17. The U. S. Soil Conservation has in recent years mapped the various grades of land and indicated how they may be used most profitably.
18. Forty million acres of land in the Great Plains region, which were plowed for the first time during World War I, have been totally destroyed for farming purposes by dust storms, which have blown away the fertile top soil.
19. Federal and state governments granted the railroads twenty sections of free land for each mile of track laid. Frequently the railroads took more, and—what was most bitterly resented—kept what they had for speculation. They gambled on an increase in value after twenty or thirty years. During this time they paid no taxes on their land.
20. The Dayton flood of 1913 caused property damage amounting to \$100,000,000.
21. Three-fourths of a million people were left homeless by the 1927 floods.

22. The United States government today owns and maintains approximately 160,000,000 acres of forests.
23. Floods in 1936 did \$10,000,000 worth of damage in one small city, Johnstown, Pennsylvania.
24. In 1862 the political agitation of forty years bore fruit when the Homestead Act offered settlers 160 acres of land free. The whole system of administration, however, became honeycombed with fraud, and much of the land went to monopolistic holders, who indulged in graft, rather than to the poor people for whom it was intended.
25. Damage resulting from the 1927 floods amounted to more than \$350,000,000.
26. About two hundred million acres of the grasslands, which were plowed for the first time during the first World War, have been badly damaged by dust storms during the past few years.

Directions: (2) You have been given a list of statements about our natural resources. Below are some possible generalizations concerning natural resources. Place a check mark (✓) before each generalization that is adequately supported by the statements. After each generalization that you check, place the number of the statement upon which it is based.

Some of the items on this page are not generalizations. Be sure that each item that you check is a generalization.

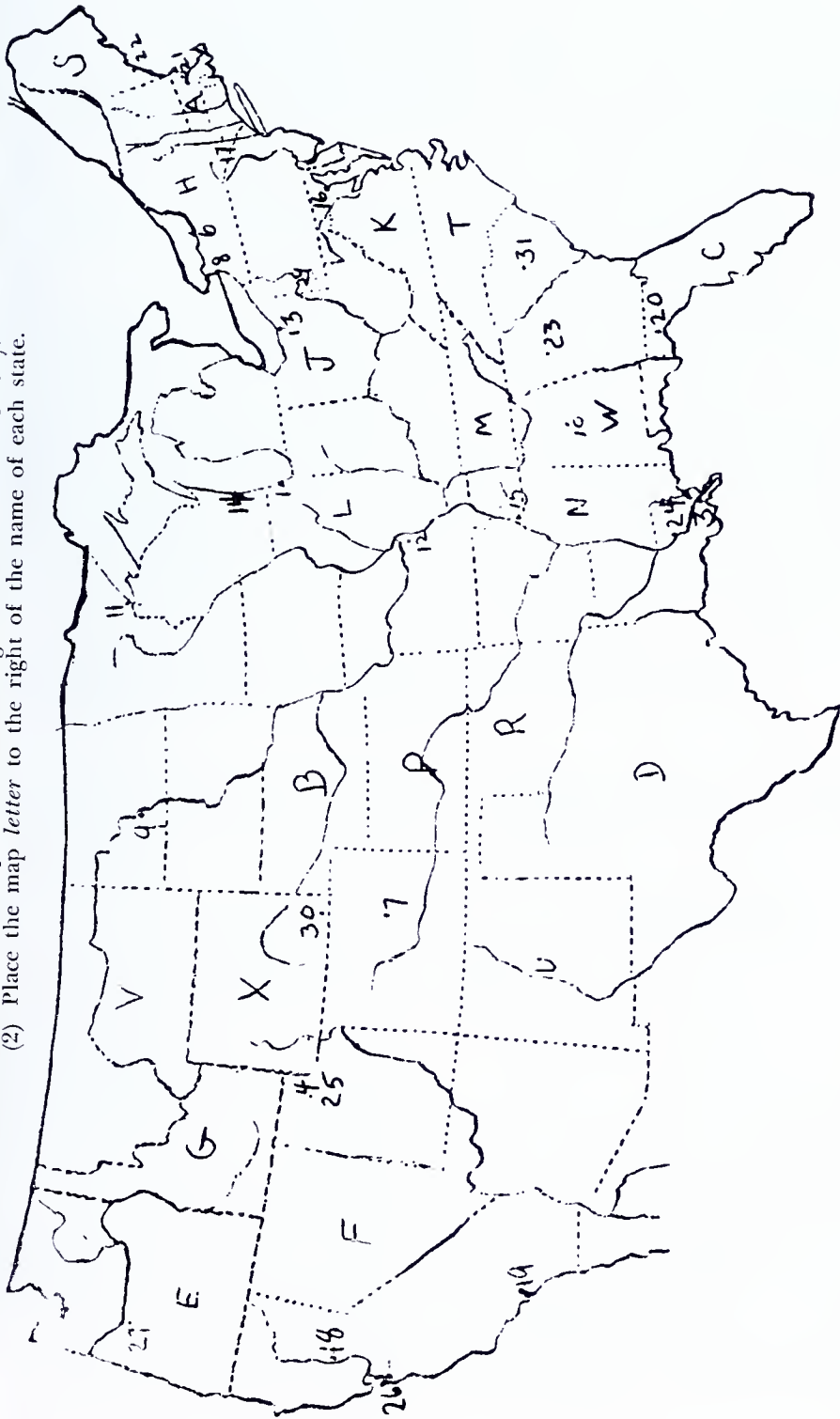
- _____ 1. The cultivation of farm lands under the impetus of war, among other factors, has led to floods and dust storms.
(Supported by statements _____.)
- _____ 2. We had serious droughts in the United States during the late 1800's.
(Supported by statements _____.)
- _____ 3. Under the provisions of the Homestead Act a person could get 160 acres of land free, if he would settle it.
(Supported by statements _____.)
- _____ 4. Publicly-owned natural resources have frequently fallen into the hands of private business as a result of neglect by public officials and as a result of graft and other corrupt practices.
(Supported by statements _____.)
- _____ 5. Mark Twain wrote many novels dealing with life in the region of the Mississippi River.
(Supported by statements _____.)
- _____ 6. Public officials since 1900 have begun to take steps to conserve our natural resources.
(Supported by statements _____.)
- _____ 7. We have had more floods since 1900 than we had before that time.
(Supported by statements _____.)
- _____ 8. Prices increase sharply during a war
(Supported by statements _____.)

On the basis of the generalizations which you have checked, frame one statement which is inclusive of all and represents all or a majority of the ideas contained in those statements which you checked.

TESTING ABILITY TO LOCATE PLACES

MAP TEST

Directions: (1) Place the map number to the right of the name of each city.
(2) Place the map letter to the right of the name of each state.



- | | | | | | | | |
|----------------|-------|-------------------|-------|------------------|-------|--------------------|-------|
| A. Baltimore | _____ | O. Ogden | _____ | 1. Florida | _____ | 8. New Mexico | _____ |
| B. Birmingham | _____ | P. Poughkeepsie | _____ | 2. Kansas | _____ | 9. New York | _____ |
| C. Boston | _____ | Q. Sacramento | _____ | 3. Massachusetts | _____ | 10. North Carolina | _____ |
| D. Buffalo | _____ | R. St. Louis | _____ | 4. Mississippi | _____ | 11. Ohio | _____ |
| E. Chicago | _____ | S. Salt Lake City | _____ | 5. Montana | _____ | 12. Oklahoma | _____ |
| F. Cleveland | _____ | T. Seattle | _____ | 6. Nebraska | _____ | 13. Tennessee | _____ |
| G. Columbia | _____ | | | 7. Nevada | _____ | | |
| H. Denver | _____ | | | | | | |
| I. Duluth | _____ | | | | | | |
| J. Homestead | _____ | | | | | | |
| K. Los Angeles | _____ | | | | | | |
| L. Memphis | _____ | | | | | | |
| M. Milwaukee | _____ | | | | | | |
| N. New Orleans | _____ | | | | | | |

10.

TESTING ABILITY TO INTERPRET DATA

Directions: In each of the following exercises, certain facts are stated. Read the following quotations carefully and on the basis of the facts given, mark with a

T—Statements which are true.

U—Statements which might possibly be true, but for which sufficient facts are not given to justify the interpretation.

F—Statements which are false.

1. "When the Austro-Hungarian Monarchy fell apart in 1918, there was formed, out of the chief German-speaking element, the Republic of Austria, with Vienna as its capital and with a provisional democratic government. Eight principal national groups were freed from the bonds that long restrained them to form themselves as part of six different states. The northern Slavs organized the Republic of Czechoslovakia. The southern Slavs united in the Kingdom of the Serbs, Croats, and Slovenes—a sort of Greater Serbia. The Magyars, always loosely joined to Austria, adopted a separate national program. The Rumanians of Transylvania became part of a Greater Rumania. Galicia was included within the borders of Poland. These changes brought about a reduction of population from 51,000,000 for the whole Austro-Hungarian realm before 1914 to 6,500,000 in Austria and 8,000,000 in Hungary."
 - _____a. Most of the people in the Republic of Austria speak German.
 - _____b. The eight principal national groups which had composed the old monarchy of Austria-Hungary separated at the close of the first World War to form eight new states.
 - _____c. The largest share of the old monarchy was retained by Austria.
 - _____d. A democratic government was not adopted by all the new states which were formed out of Austria-Hungary.
 - _____e. Although the Hapsburgs, who had ruled Austria since the Middle Ages, were forced to give up most of their former possessions, they still retained Czechoslovakia.
 - _____f. Austria is more densely populated than Hungary.
 - _____g. The division of Austria-Hungary was made, as nearly as possible, according to national or racial lines.
2. "When the defeat of Germany (1918) made possible the re-creation of the Polish state, account was taken first of the principle of viability; that is, the state must have the balance in economic resources, size, and access to markets that would enable it to avoid economic shipwreck. In the second place, there had been general agreement on the Wilson postulates that the new Polish state must (1) include territories inhabited by indisputably Polish populations, (2) be assured a free and secure access to the sea, and (3) be guaranteed political and economic independence and territorial integrity. As interpreted by Polish leaders, this meant a return to the boundaries of the 18th century. Many wished to see even East Prussia included. It was taken for granted that Danzig would become a Polish port. All of Eastern Galicia was assumed to be Polish territory, though inhabited chiefly by Ruthenians. All of Upper Silesia was considered essential, in order that the vast coal resources of that region might be available for the rebuilding of Poland's industrial life.

"On the northeast was Lithuania, and the Poles could not forget that it was once part of a Greater Poland, with a long Baltic coastline. Like the other states of central Europe in postwar years of chaos and uncertainty in both domestic and foreign affairs, Poland feared her neighbors and felt that the more extensive her territory and the larger her population, the greater would be her future security."

- _____a. When Poland was re-created after World War I, she was not given the boundaries which she had had in the 18th century.
- _____b. The inclusion of upper Silesia was considered essential for the economic development of the new Poland.
- _____c. It was agreed that Poland should have access to the sea.
- _____d. It was agreed that the new Poland would include only territory which was inhabited by indisputably Polish populations.
- _____e. Poland's integrity was so guaranteed by the other great powers that she felt no fear of her foreign neighbors.
- _____f. It was the chief concern of the Powers in making the new map of Europe, to give Poland natural boundaries which could easily be defended.
- _____g. Viability means the ability to sustain an independent existence after being created.
- _____h. East Prussia was not included within the boundaries of the new Polish state.
- _____i. Upper Silesia contains large deposits of coal.
- _____j. It was thought best to give Danzig to Poland because of the large Polish population which Danzig contained.

SUMMARY

1. Evaluation is the process of gathering, interpreting, and using evidence on the growth in the way students think, feel, and act. It includes educational measurement and other types of appraisal as well.
2. The learner functions as a unit. As growth is comprehensive, so must be its evaluation. Otherwise teaching and learning may result only in the artificial memorization of factual information.
3. What is evaluated determines what is taught.
4. Few tests can be purchased to measure functional outcomes. These must be teacher-constructed.
5. As much objective measurement as possible should be used. However, to appraise the greater outcomes (understanding, attitudes, and changes in the way students think, feel, and act), questionnaires and check lists are indispensable.
6. The newer type of pencil-paper test items involves the ability: (1) to read maps, (2) to locate information, (3) to form generalizations, (4) to locate places, and (5) to interpret data.
7. Since evaluation is an integral part of teaching, growth toward its objectives should be a constant challenge.

CHAPTER V

SUPPLEMENTARY MATERIAL

There are many types of supplementary materials. Each is essential in teaching. Teachers find ready-made learning materials of inestimable value in stimulating the interests of students during the exploration or initiation stage of a unit of work and in the collection of information during the developmental period.

It is necessary that teachers think carefully about the selection, use or rejection of these materials in their efforts to promote direct purposeful learning-by-doing experiences. It is impossible and undesirable to state that any one of these types of aids is the best. Each may be better than some other type in relation to certain needs for learning experiences.

Compiling a complete list of sources and references for geographical materials would be a voluminous task. The teacher and student are referred to some selected references of specific interest. Additional use and thoughtful evaluation of each item are needed. This listing should not be considered as a complete recommendation.

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- American Observer*, Civic Education Service, Inc., 1733 K Street, Washington, D. C.
Christian Science Monitor
Current Events, American Education Press, Columbus, Ohio
Home Town Papers
New York Herald Tribune
New York Times
Our Times, American Education Press, Columbus, Ohio
Senior Scholastic, 7 East 12th Street, New York 3, New York
Weekly News Review, Civic Education Service, Inc., 1733 K Street, Washington, D. C.
World Week, 7 East 12th Street, New York 3, New York

JUNIOR HIGH SCHOOL

- Current Science and Aviation*, American Education Press, Inc., 400 South Front St., Columbus, Ohio, and 580 Fifth Ave., New York
Junior Review, Civic Education Service, 32 East 57th St., New York 22, New York
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Americas—Pan American Union, Washington, D. C.

Annals of the Association of American Geographers, Department of Geography, Syracuse, N. Y.

Canadian Geographical Journal, 47 Metcalfe St., Ottawa, Canada

Economic Geographer, Clark University, Worcester, Mass.

Geographical Journal, The Royal Geographical Society, 50 Albemarle St., London, England

Geographical Review, Broadway at 156th St., New York, N. Y.

Geography School Bulletin, 16th & M Sts., NW, Washington 6, D. C.

Journal of Geography, 3333 Elston Ave., Chicago 18, Ill.

Keystones in Geography, Pennsylvania Council of Geography Teachers, E. Hauson, Editor, University of Pittsburgh, Pittsburgh 13, Pa.

National Geographic Magazine, 16th & M Sts., NW, Washington 6, D. C.

National Geographic Magazine, Cumulative Index. 1899-1946 and 1947-1949, National Geographic Society, Washington, D. C.

The Professional Geographer, Department of Geography, Colgate University, Hamilton, N. Y.

Soil Conservation, Soil Conservation Service, U. S. Department of Agriculture, Washington, D. C.

Some General Periodicals with Considerable Material of Geographic Value

Holiday, The Curtis Publishing Co., Independence Square, Philadelphia 5, Pa.

News Week, Weekly Publication, Inc., 350 Dennison Ave., Dayton 1, Ohio

U. S. News and World Report, 437 Parker Ave., Dayton 1, Ohio

WORLD AND INTERNATIONAL COOPERATION PAMPHLETS

Hamilton, Thomas, and Dean, Vera M., "Report on the UN," Headline Pamphlet Series. New York, Foreign Policy, 1949

Higinbotham, William, and Lindley, Ernest, "Atomic Challenge," Headline Pamphlet Series. New York, Foreign Policy, 1947

Slosson, Preston, and Kirk, Grayson, "Swords of Peace," Headline Pamphlet Series. New York, Foreign Policy Association, 1947

Stewart, Maxwell S., "What Foreign Trade Means to You." New York Public Affairs, 1945. Pamphlet

"The United Nations." New York, Merrill, 1949 edition. Pamphlet. Useful charts
U. S. Office of Inter-American Affairs, "Our American Neighbors." Washington, American Council on Public Affairs, 1945

SOURCES OF PICTURES

PICTURES

Pictures from the following sources may be mounted, classified, and filed in library or classroom file. Flat pictures can be purchased from:

Abrams Aerial Survey Corp., 606 E. Shiawasee Street, Lansing, Michigan.

F. E. Compton and Co., 1000 N. Dearborn Street, Chicago, Illinois.

Denoyer-Geppert Co., 5235 Ravenswood Avenue, Chicago, Illinois.

Ideal School Supply Co., 1812 Birkhoff Avenue, Chicago, Illinois.

Informative Classroom Pictures, 48 N. Division Avenue, Grand Rapids, Michigan.

National Geographic Society, 16th and M Streets, NW, Washington, D. C.

A. J. Nystrom & Co., 3341 Elston Avenue, Chicago, Illinois.

Railroad Pictures of General Interest, Baltimore and Ohio Railroad Co., Public Relations Department, Baltimore 1, Maryland.

Swedish State Railways Travel, Information Bureau, 551 Fifth Avenue, New York, New York.

Yosemite Park and Curry Co., Yosemite National Park, California.

Other Sources—Magazines, Newspapers, Picture Supplements, Advertising Pamphlets.

MAP PUBLISHERS

American Geographical Society, Broadway at 156th Street, New York, New York.

The Geographical Press, Columbia University, New York 27, New York.

The George F. Cram Company, Incorporated, 730 East Washington Street, Indianapolis, Indiana.

Denoyer-Geppert Company, 5235 Ravenswood Avenue, Chicago 40, Illinois.

C. S. Hammond and Company, 305 East 63rd Street, New York 21, New York.

McKinley Publishing Company,* 809 North 19th Street, Philadelphia 30, Pennsylvania.

McKnight and McKnight,* 109 West Market Street, Bloomington, Illinois.

National Geographical Society, 16th and M Streets, NW, Washington 6, D. C.

Rand McNally Publishing Company, 111 Eighth Ave., New York, New York.

A. J. Nystrom and Company, 3333 Elston Avenue, Chicago 18, Illinois.

University of Chicago Press,* 5750 Ellis Avenue, Chicago 37, Illinois.

Weber Costello Company, 12th and McKinley Streets, Chicago Heights, Illinois.

FREE MATERIALS FROM FOREIGN SOURCES

Students and teachers will find the tourist and information services of the various countries, listed below, valuable in developing units of work. New sources are announced from time to time.

American Swedish News Exchange, 630 Fifth Avenue, New York 20, New York.

Associated British and Irish Railway, Inc., 9 Rockefeller Plaza, New York 20, New York.

Austrian Information, 509 Fifth Avenue, New York 17, New York.

Belgian Information Center, 630 Fifth Avenue, New York 20, New York.

British Information Service, 30 Rockefeller Plaza, New York 20, New York.

British Travel and Holiday Association, 6 Arlington Street, London, S. W.

British Travel Association, 336 Madison Avenue, New York 17, New York.

Canadian Information Service, Department of External Affairs, Ottawa, Canada.

Council on African Affairs, Inc., 23 West 26th Street, New York 10, New York.

Czechoslovakian Consulate General, 6 East 67th Street, New York 21, New York.

Danish Information Service, 588 Fifth Avenue, New York 19, New York.

Embassy of India, 2107 Massachusetts Avenue, NW, Washington, D. C.

Embassy of the Union of Soviet, Socialist Republic, 1122 Sixteenth Street NW, Washington, D. C.

French Embassy Information Division, 610 Fifth Avenue, New York 2, New York.

Greek Government Office of Information, 30 Rockefeller Plaza, New York 20, New York.

India League of America, 40 East 49th Street, New York 17, New York. (Egypt News)

* These companies publish primarily outline wall and desk maps. Such outline maps are available also from Denoyer-Geppert, and Nystrom.

- Legation of the Republic of Hungary, 2118 Leroy Place NW, Washington 8, D. C.
 Luxemburg Legation, Washington, D. C.
 Netherlands Embassy, Washington 9, D. C.
 Netherlands National Tourist Office, 521 Fifth Avenue, Room 1009, New York, New York.
 Norwegian American Line Agency, Inc., Passenger Department, 24 State Street, New York, New York.
 Official Belgium, Tourist Bureau, 422 Madison Avenue, New York 17, New York.
 Polish Research and Information Service, 1250 West 57th Street, New York 19, New York.
 Royal Embassy of Sweden, Washington, D. C.
 Royal Egyptian Embassy, 2310 Decatur Place, NW, Washington 8, D. C.
 Royal Norwegian Information Service, 3515 Massachusetts Avenue, NW, Washington 7, D. C.
 Spanish Tourist Office, 485 Madison Avenue, New York 22, New York.
 Swiss National Tourist Office, 475 Fifth Avenue, New York 17, New York.
 Turkish Information Office, 444 East 52nd Street, New York 22, New York.
 Venezuela Information Service, 2437 California Street NW, Washington 8, D. C.
 Yugoslav Embassy, 1520 Sixteenth Street, NW, Washington, D. C.

SOURCES OF FREE CHARTS, POSTERS, PAMPHLETS, BOOKLETS, MAPS, AND EXHIBITS

CHARTS AND POSTERS

- America's National Parks, Greyhound Information Center, Department N. P., Box 815, Chicago 90, Illinois.
 Assorted Color Prints Suitable for Framing, United Air Lines—School and College Service, 5959 South Cicero Avenue, Chicago 38, Illinois.
 Chart Showing Some of the 200,000 Products of Coal, Bituminous Coal Institute, Educational Department, 320 Southern Building, Washington, D. C.
 Coal, Oil, and Natural Gas, Reserve and Production, Bituminous Coal Institute, Educational Department, 320 Southern Building, Washington, D. C.
 Contour Farming Pays in Three Ways, J. I. Case Company, Racine, Wisconsin.
 Cotton Products Chart, The National Cotton Council of America, P. O. Box 76, Memphis, Tennessee.
 Dramatic Story of Steel Told by Murals, Inland Steel Company, 38 South Dearborn St., Chicago 3, Illinois.
 Educational Poster, Australian News and Information Bureau, 630 Fifth Avenue, New York 20, New York.
 Kodachrome Wall Pictures for Framing, Trans World Airline, Air World Education, Kansas City 6, Missouri.
 Outline Story of Honey Production, G. B. Lewis Company, Watertown, Wisconsin.
 Photo Memo No. 6, Standard Oil Company, 30 Rockefeller Plaza, New York 20, New York.
 Products of American Forests, American Forest Products Industries, 1319 Eighteenth Street, NW, Washington 6, D. C.
 Relation of Coal Carbonization to Industry, Koppers Company, Pittsburgh, Pennsylvania.
 A Story of Sugar, U. S. Beet Sugar Association, Washington 5, D. C.
 Suggestions for Integrating Forestry, in the Modern Curriculum—0-32, U. S. Department of Agriculture, Forest Service, Washington 25, D. C.

Sulphur Mining at New Gulf, Texas Gulf Sulphur Company, 1002 Second National Bank Building, Houston 2, Texas.

Sulphur Charts, Texas Gulf Sulphur Company, 1002 Second National Bank Building, Houston 2, Texas.

U. S. Supply and U. S. Consumption of Liquid Petroleum Products, American Petroleum Institute, 50 West 50th Street, New York 20, New York.

Additional sources are announced from time to time.

PAMPHLETS

Pamphlet Material secured from the organizations listed below would be very helpful to the teacher.

American Association for the UN, 45 East 65th Street, New York 21, New York.

American Institute of Pacific Relations, 1 East 54th Street, New York 22, New York.

Committee on International Relations, National Education Association, 1201 Sixteenth Street, NW, Washington 6, D. C.

Committee on International Economic Policy, 405 West 117th Street, New York 27, New York.

Foreign Policy Association, 22 East 38th Street, New York, New York.

World Peace Foundation, 40 Mt. Vernon Street, Boston, Massachusetts.

Useful government publications may be obtained from the following sources:

BULLETINS

Federal Security Agency, Office of Education, Washington, D. C.

Pennsylvania Government Agencies, Harrisburg, Pennsylvania.

Write to various Departments for lists of publications:

Pennsylvania Fish Commission

Pennsylvania Game Commission

Department of Agriculture

Department of Forests and Waters

Department of Highways

Department of Internal Affairs

Planning Commission

BOOKLETS

Air Transportation—Some Interesting Phases, United Air Lines, School and College Service, 5959 South Cicero Avenue, Chicago 39, Illinois.

Better Tires from Man-Made Rubber, Gulf Oil Corporation, Gulf Building, Pittsburgh 30, Pennsylvania.

Conservation—Making the Most of Our Oil, Standard Oil Company, New Jersey.

How to Make the Most Money from Your Trees, Southern Pulpwood Conservation Association, 1506 First National Bank Building, Atlanta 3, Georgia.

How Steel is Made, Inland Steel Company, 38 South Dearborn Street, Chicago 3, Illinois.

How Pennsylvania Motor Oils Are Made, Pennsylvania Grade Crude Oil Association, Information Department, Oil City, Pennsylvania.

"Let's Fly to Latin America," Pan American World Airways, 28-19 Bridge Plaza N., Long Island City 1, New York

Petroleum in the World, Standard Oil Company (N. J.), 30 Rockefeller Plaza, New York 20, New York.

Plastics—The Story of an Industry, Society of the Plastics Industry, Inc., 295 Madison Avenue, New York 17, New York.

Producing Sugar Cane, Gulf Oil Corporation, Gulf Building, Pittsburgh, Pennsylvania.
 Pulpwood—Key to Sustained Forest Income, Union Bag and Paper Corporation, Savannah, Georgia.

School Bibliography on Forests, American Forest Products Industries, 1319 Eighteenth Street NW, Washington 6, D. C.

Stainless Steel, Allegheny Ludlum Steel Corporation, Public Relations Department, Pittsburgh 22, Pennsylvania.

Story of Asbestos, Johns Manville, 22 East 40th Street, New York 16, New York.

Story of Leather, Ohio Leather Company, Girard, Ohio.

MAPS

Australian News and Information Bureau, 630 Fifth Avenue, New York 20, New York.

Association of American Railroads, Public Relations Department, Transportation Building, Washington 6, D. C.

Esso Touring Service, 15 West 51st St., New York 19, New York.

Canadian Embassy, 1746 Massachusetts Avenue, NW, Washington, D. C.

French Embassy, Information Division, 610 Fifth Avenue, New York 20, New York.

Government of India, Information Service, 2107 Massachusetts Avenue, NW, Washington 8, D. C.

New Zealand Embassy, Washington 8, D. C.

Pan American World Airways, 28-19 Bridge Plaza N., Long Island City 1, New York.

Pemex Travel Club, Avenida Juarez, 89, Mexico City, Mexico.

Polish Research and Information Service, 250 West 57th Street, New York 19, New York.

Register of Copyrights, Library of Congress, Washington 25, D. C.

Standard Oil Company, 30 Rockefeller Plaza, New York 20, New York.

Trans World Airline, Air World Education, Kansas City 6, Missouri.

Turkish Information Office, 444 East 52nd Street, New York 22, New York.

United Airlines, School and College Service, 5959 South Cicero Avenue, Chicago 38, Illinois.

U. S. Department of Agriculture, Forest Service, Washington 25, D. C.

U. S. Maritime Commission, Office of the Secretary, Washington 25, D. C.

EXHIBITS

Central Valley Cornucopia of California, U. S. Department of Interior, Bureau of Reclamation, Washington 5, D. C.

Cocoa Exhibit Box, Nestles Chocolate Test Kitchen, 60 Hudson Street, New York 13, New York.

Commercial Museum,¹ 34th and Spruce Streets, Philadelphia 4, Pennsylvania.

Conquest of the Colorado, U. S. Dept. of Interior, Bureau of Reclamation, Washington 5, D. C.

Creating an Empire, U. S. Dept. of Interior, Bureau of Reclamation, Washington 5, D. C.

Evolution of an Aluminum Clothes Sprinkler, Aluminum Goods Manufacturing Company, Manitowoc, Wisconsin.

Exhibits of Cotton Boll, Rice, and Sugar Cane, Louisiana Department of Agriculture and Immigration, 541 Saint Ann Street, New Orleans 16, Louisiana.

¹ Cabinet containing specimens and mounted pictures can be obtained free by writing to Charles R. Toothaker, Curator. Request must come from school administrator.

SOURCES OF FILMS

Films relating to geographic topics or countries may be found in the following sources:

- Academy Films, P. O. Box 3088, Hollywood, California
- American Telephone and Telegraph Company, Information Department, Film and Display Division, 195 Broadway, New York 7, New York
- Association Films, Inc., 35 W. 45th St., New York 19, New York
- Australian News and Information Bureau, 630 Fifth Ave., New York 20, New York
- The Blue Book of 16 mm Films, The Educational Screen, Inc., 64 East Lake St., Chicago, Illinois
- Brandon Films, Inc., 1700 Broadway, New York 19, New York
- British Information Services, 30 Rockefeller Plaza, New York 20, New York
- Columbia University Press, Communication Materials Center, New York 27, New York
- Coronet Instructional Films, 207 E. 37th St., New York 16, New York
- Danish Information Office, 15 Moore St., New York 4, New York
- Educators Guide to Free Films, Educators Progress Service, Randolph, Wisconsin
- Encyclopaedia Britannica Films, Inc., 1150 Wilmette Ave., Wilmette, Illinois
- Educational Film Service, 180 N. Union St., Battle Creek, Michigan
- Films, Inc., 330 West 42nd St., New York 18, New York
- Film Highlights, Inc., 1697 Broadway, New York 19, New York
- Films of the Nations, Inc., 55 West 45th St., New York 19, New York
- Hawaiian Press Bureau, 1040 National Press Building, Washington 4, D. C.
- Hollywood Film Enterprises, Inc., 6040 Sunset Blvd., Hollywood 28, California
- Ideal Pictures Corp., 26 East 8th St., Chicago 5, Illinois
- Information Division of the French Embassy, Film Section, Rooms 1001-1600, Broadway, New York 19, New York
- International Geographic Pictures, 1776 Broadway, New York 19, New York
- International 16 mm Corporation, 165 West 46th St., New York 19, New York
- Modern Film Corporation, 729 Seventh Ave., New York 19, New York
- Motion Picture Association of America, Inc., 28 West 44th St., New York 18, New York
- National Education Films, Inc., 2089 Broadway, New York 23, New York
- National Film Board of Canada, 1270 Avenue of the Americas, New York 20, New York
- National Film Society of Canada, 172 Wellington St., Ottawa, Ontario, Canada
- New York University Film Library, 26 Washington Place, New York 3, New York
- Office of Puerto Rico, 1026 17th St., NW, Washington 6, D. C., or Room 2003, 2 Park Avenue, New York 1, New York
- Pan American Union, Motion Picture Service, Washington 6, D. C.
- Pan American World Airways, 28-19 British Plaza N., Long Island City 1, New York
- P.C.W. Film Service, Pennsylvania College for Women, Pittsburgh 6, Pennsylvania
- Pennsylvania State College, Audio-Visual Aids Library, State College, Pennsylvania
- Philadelphia Commercial Museum, 34th and Spruce Sts., Philadelphia 4, Pennsylvania
- Post Pictures Corporation, 115 West 45th Street, New York 19, New York
- R. K. O. Radio Pictures, Inc., 1270 Sixth Avenue, New York 20, New York
- United Air Lines, School & College Service, 8080 East 42nd Street, New York 17, New York
- UN Films and Visual Information Division, Department of Public Information, Lake Success, New York
- United Service to China, 1790 Broadway, New York 19, New York

U. S. Department of Agriculture, Motion Picture Service, Office of Information, Washington 25, D. C.

U. S. Office of Education, Directory of the U. S. Government Films, Washington, D. C.

U. S. Fish & Wildlife Service, Department of the Interior, Washington 25, D. C.

U. S. Forestry Service, Washington 25, D. C.

United World Films, Inc., 1445 Park Avenue, New York 29, New York

Young America Films, Inc., 18 East 41st Street, New York 17, New York

FREE MOTION PICTURE FILMS

Free motion picture films, useful in high school geography classes, can be obtained from the following sources:

Allis Chalmers Manufacturing Company, 935 Hiawatha Boulevard, Syracuse 1, New York

American Institute of Steel Construction, 101 Park Avenue, New York 17, New York

American Press Products Industries, Inc., 1319—18th St., NW, Washington 6, D. C.

Association Films, 347 Madison Avenue, New York 17, New York

Association of American Railroads, Transportation Building, Washington, D. C.

Atchinson, Topeka and Santa Fe Railroad, 80 E. Jackson Boulevard, Chicago, Illinois

Memes Bag Company, 5112 Second Avenue, Brooklyn, New York

Chicago, Milwaukee and St. Paul Railroad, 516 E. Jackson Boulevard, Chicago, Ill.

Chicago, Rock Island and Pacific Railroad, LaSalle Street Station, Chicago, Illinois

Coast Guard Headquarters, Washington 25, D. C.

Douglas Fir Plywood Association, 205 E. 42nd Street, New York, New York

Empire State Observatories, Empire State Building, New York, New York

Esso Standard Oil Company, 50 Rockefeller Plaza, New York 20, New York

Firestone Tire and Rubber Company, Akron, Ohio

Fish and Wildlife Service, U. S. Department of Interior, Washington 25, D. C.

General Electric Company, 570 Lexington Avenue, New York, New York

General Motors Corporation, 1775 Broadway, New York, New York.

Goodyear Tire & Rubber Company, Akron 16, Ohio

Hammermill Paper Company, Erie, Pennsylvania

Illinois Central Railroad, A. W. Eckstein, Adv. Agent, 135 East Eleventh Place, Chicago, Illinois

Institute of Visual Training, 40 E. 49th Street, New York 17, New York

International Harvester Company, 180 North Michigan Avenue, Chicago 1, Illinois

R. H. Macy's, Inc., Broadway and 34th Street, New York, New York

Meyerheuser Soles Company, P. O. Box 629, Newark, New Jersey

Modern Talking Picture Service, 9 Rockefeller Plaza, New York 20, New York

Moore MacCormack Lines, Inc., 5 Broadway, New York 4, New York

National Federation of American Shipping, 1809 South Street, NW, Washington, D. C.

New York Central Railroad, 466 Lexington Avenue, New York, New York

New York State Department of Commerce, 40 Howard Street, Albany, New York

Pan American World Airways, Chrysler Building, New York 17, New York

Pennsylvania Railroad, Pennsylvania Station, New York, New York

Port of New York Authority, 111 Eighth Avenue, New York, New York

Princeton Film Center, Princeton, New Jersey

Shell Oil Company, 50 West 50th Street, New York 20, New York

Swift and Company, Union Stockyard, Chicago, Illinois

Tennessee Valley Authority, Norris, Tennessee

Transcontinental and Western Air Lines, Inc., Frank Hargrove, Motion Pictures,
630 Fifth Avenue, New York, New York
U. S. Bureau of Mines, Department of Interior, 3800 Forbes St., Pittsburgh, Penna.
U. S. Bureau of Reclamation, Department of Interior, Washington, D. C.
U. S. Department of Agriculture, Washington, D. C.
U. S. Treasury Department, 253 Broadway, New York, New York
U. S. Rubber Company, 1230 Avenue of the Americas, New York, New York
U. S. Steel Corporation, 426 Seventh Avenue, Pittsburgh 30, Pennsylvania
Westinghouse Vocational High School, Board of Education Film Center, Flatbush
Ave., Extension and Concord Sts., Brooklyn, New York

(All motion pictures are free but the school usually has to pay transportation charges both ways.)

SOURCES OF SLIDES AND FILMSTRIPS

Slides and filmstrips lend to more intensive analysis and interpretation than is possible with the motion picture. Write to the following sources for pictures of all countries:

SLIDES

American Council on Education, 744 Jackson Place, Washington 6, D. C.
Castle Films, Inc., 30 Rockefeller Plaza, New York 20, New York
Coast Visual Education Co., 143 W. Washington Boulevard, Los Angeles 15, Calif.
Commonwealth of Pennsylvania, State Library, Lantern Slide Section, Harrisburg, Penna. (3¼" x 4" slides—no rental charge)
Educators Guide to Free Slidefilms, Mary Foley Horkheimer, and John W. Ditter, Educators Progress Service, Randolph, Wisconsin
Geographical Slide Service, E. Willard Miller, 200 East Irwin Ave., State College, Pennsylvania
Keystone View Company, Meadville, Pennsylvania
Munday and Collins, 814 W. Eighth Street, Los Angeles 14, California
Popular Science Publishing Company, Audio-Visual Division, 353 Fourth Avenue, New York 10, New York
Society for Visual Education, Inc., 100 East Ohio Street, Chicago 11, Illinois
Washington Kodachrome Slides, Exchange—University of Washington, (Scenes of 10 countries outside the U. S.) Graham H. Lawton, Department of Geography, University of Washington, Seattle, Washington

FILMSTRIPS

American Council on Education, 744 Jackson Place, Washington 6, D. C.
Castle Films, Inc., 30 Rockefeller Plaza, New York 20, New York (U. S. Office of Education materials)
Filmstrip Guide, The H. W. Wilson Co., 950-972 University Avenue, New York 52, N. Y.
The Jam Handy Organization, 2821 E. Grand Boulevard, Detroit 11, Michigan
Popular Science Publishing Company, Audio-Visual Division, 353 Fourth Avenue, New York 10, New York
Society for Visual Education, Inc., 100 East Ohio Street, Chicago 11, Illinois
Some can be rented, others must be purchased.

FREE PUBLICATIONS ON PENNSYLVANIA GEOGRAPHY

Each geography teacher should have and use a copy of Pamphlet Number 6, "List of State Publications," Commonwealth of Pennsylvania, compiled by Alice Allen, Editor, Bureau of Publications, Harrisburg. A copy may be obtained from the Bureau of Publications.

APPENDIX

ACKNOWLEDGMENTS

For participation in the preparation of this progress report, representatives from the field of geography education have been selected by every county and district superintendent in the Commonwealth. These participants have received a letter of appointment from Francis B. Haas, Superintendent of Public Instruction, naming them as members of district geography curriculum committees. Nine district committees of this type have been organized. The cooperation of the superintendents has made this wide participation possible.

The chairmen of the nine district committees and elected officers of the Geography Round Table of the Pennsylvania State Education Association have made up the State committee. The names of these persons are listed on page vi.

State committee members have assembled their district committee members frequently for recommendations and reports. Out of these conferences and work by teachers in action, the material for this progress report has been developed.

The cooperation and hospitality of the following sponsoring institutions have made the semiannual area curriculum conferences possible:

Edinboro State Teachers College
Indiana State Teachers College
Lehigh University
Lock Haven State Teachers College
Pennsylvania College for Women
Slippery Rock State Teachers College
University of Pennsylvania
University of Pittsburgh
Wilkes College

This pattern of local and State activity will be continued while this progress report is tried out and evaluated and further contributions are made for its revision.

W. E. Strawinski, editorial assistant in the Department of Public Instruction, has done careful work in editing the manuscript.

The wholehearted and sincere cooperation of the following district geography curriculum committee members is creating new horizons of education in Pennsylvania.

DISTRICT COMMITTEES

WESTERN DISTRICT

Chairman

Virginia P. Schauer, North Hills Joint Schools, Pittsburgh 29

Committee

Aaron, Helen, Hamilton Junior High School, McKees Rocks
Angelucci, Nick G., Sharpsburg High School, Sharpsburg
Austen, Jane, 305 Center Avenue, Aspinwall
Barrick, S. S., 29 Nutt Avenue, Uniontown
Baumgardner, Harry O., 21 Fourth Avenue, Latrobe
Beadling, Elizabeth (Mrs.), 130 N. Linden Avenue, Pittsburgh 8
Boag, Edna, Monessen High School, Monessen
Brosky, Bertha, 1208 Hipe Hollow Road, Carnegie
Butz, Sara, 1411 Summit Street, McKeesport
Calhoun, Margaret, Rankin Borough High School, Rankin

Carter, L. A., Rostraver Township High School, Belle Vernon
 Cooper, Nan R., 500 Main Street, Monongahela
 Cornell, Mary Jane, 665 Addison Street, Washington
 DePriest, Pearl, Scottdale High School, Scottdale
 Dull, Adaline, 1020 State Avenue, Coraopolis
 Friederichs, Eugene F., 1400 Troy Hill Road, Pittsburgh 12
 Griffith, Mary, Canonsburg High School, Canonsburg
 Hanson, Francis, 325 E. Evaline Street, Pittsburgh 24
 Hodil, Myrtle, Etna Borough High School, Millvale
 Holman, Wallace N., 5516 Wilkins Avenue, Pittsburgh 17
 Hrinda, Eva, West Deer Township High School, R. D. 1, Cheswick
 James, Linnie B., (Mrs.), Forest Hills Junior High School, Pittsburgh
 Jeffries, Betty (Mrs.), Charleroi Junior High School, Charleroi
 Lietman, Elizabeth, Junior High School, 820 North Avenue, Wilkinsburg, Pittsburgh 21
 Love, Mazie V., 14 Bradford Avenue, Crafton
 Loya, Julia, 916 Bellevue Avenue, McKeesport
 McFeaters, Margaret (Mrs.), Penn Township High School, Verona, R. D. 1
 Montgomery, Katherine, Parker Apts., Scottdale
 Myers, Helen K., (Mrs.), Senior High School, Donora
 Newman, Carl A., Oakmont High School, Oakmont
 Nuss, Irene, Monongahela High School, Monongahela
 Patterson, Aldine, R. D. 5, Waynesburg
 Phillips, Mary Viola, 661 Catalpa Street, New Kensington
 Roe, Salome W. (Mrs.), 199 Grant Avenue, Bellevue, Pittsburgh 2
 Sariscak, Joseph, Junior High School Building, Homestead
 Schach, Glenn, Charleroi Senior High School, Charleroi
 Shields, Matthew, New Stanton Junior High School, R. D. 4, Greensburg
 Snoke, Hubert, Windber High School, Windber
 Springer, Clara B., (Mrs.), 273 Winebiddle Street, Pittsburgh
 Stump, Lucille, Jeannette High School, Jeannette
 Terlinski, Robert, Arnold High School, Arnold
 Tippery, Roy, Tarentum High School, Tarentum
 Toth, Kolman, 7228 Schoyer Avenue, Swissvale
 Triplett, Eva, Hartman Junior High School, North Braddock
 Walker, Allene, Chartiers Township High School, R. D. 1, Washington
 Wills, Dorothy E., (Mrs.), 210 W. Green Street, Connellsville

NORTHWESTERN DISTRICT

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Gomar R. Edwards, South Side Junior High School, Oil City

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Allen, Robert C., Lincoln Junior High School, Oil City
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 Chamberlain, Wayne, Sheffield High School, Sheffield
 Conklin, Mary Alice, Tidioute High School, Tidioute
 Crissman, William, Emlenton High School, Emlenton

Fordyce, Helen, East End School, Meadville
 Foye, Esabel, North East High School, North East
 Hillkirk, John, Cochranon High School, Cochranon
 Howard, Blanche, Edinboro High School, Edinboro
 Johnson, Doris, Wesleyville High School, Wesleyville
 Linborg, Carl E., Corry Junior High School, Corry
 Mischler, H. H., Erie High School, Erie
 Morris, Lucy, Spartansburg High School, Spartansburg
 Orr, Morrison, Cambridge Springs High School, Cambridge Springs
 Runniger, Marjorie, Franklin High School, Franklin
 Salchak, Samuel, Conneautville High School, Conneautville
 Solinger, Ruth (Mrs.), Pine Grove Township High School, Russell
 Wick, James L., Tionesta High School, Tionesta

MIDWESTERN DISTRICT

Chairman

Margaret C. Puff, Senior High School, Butler

Committee

Bodkin, James A., Unionville Road, R. D. 1, Rochester
 Davis, Loretta (Mrs.), Butler Junior High School, Butler
 Elder, Margaret, 422 Beatty Street, Ellwood City
 Ewing, Ruth, Midland High School, Midland
 Gallo, Charles A., Willow Grove High School, Willow Grove
 Grimshaw, Mary, New Brighton High School, New Brighton
 Gruver, Margaret, State Teachers College, Slippery Rock
 Headland, Ronald, Sharpsville High School, Sharpsville
 Heterick, George, Sharon High School, Sharon
 Hetra, John, Sharon Junior High School, Sharon
 Holliday, Hazel (Mrs.), Rd D. 2, Beaver Falls
 Hugus, Oscar, Knox Beaver High School, Clarion
 Kassel, James, Clarion High School, Clarion
 Kuhner, G. A., State Teachers College, Clarion
 Kuvinka, George R., Aliquippa High School, Aliquippa
 McKenzie, J. H. E., New Castle High School, New Castle
 Montini, John W., 715-15th Avenue, Beaver Falls
 Russell, Hazel, Ambridge Senior High School, Ambridge
 Schaffer, Edward, Beaver Junior High School, Beaver
 Spencer, Evelyn, George Washington Junior High School, New Castle
 Webster, Robert, Hickory Township School, R. D. 2, Sharon
 Wiant, Margaret J., East Brady Junior High School, East Brady

CENTRALWESTERN DISTRICT

Chairman

Alvin Buck, Assistant County Superintendent, Cambria County, Ebensburg

Committee

Basil, Frank J., Punxsutawney
 Bennett, James R., 378 S. Main St., Homer City
 Bernabei, Raymond, Clymer Boro H. S., Clymer
 Bird, Margaret Isabella, 421½ Franklin St., Johnstown

Dunsmore, Mrs. Kathryn, Barnesboro Jr. H. S., Barnesboro
 Fitzgerald, John W., R. D. 4, Kittanning
 Harwick, Max C., Asst. Co. Supt., Indiana
 Hoenstine, Earl S., State Teachers College, Indiana
 Jamison, Clair, Homer City H. S., Homer City
 MacMillen, Alice, Blairsville Jr. H. S., Blairsville
 Mahan, Webster, Blacklick Twp., Twin Rocks
 McGaughey, Gladys, 1425 W. Phila. St., Indiana
 McTigue, Mrs. Frances, Salisbury-Elk Lick Jt., Salisbury
 Meyers, Bernice, Somerset H. S., Somerset
 Nichols, Beatrice, W. Church St., Indiana
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